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ANNUAL SUMMARY

OF

BIRTHS, DEATHS, AND CAUSES OF DEATH

IN

LONDON,

AND OTHER GREAT TOWNS,

1890.

PUBLISHED BY THE AUTHORITY OF THE REGISTRAR GENERAL OF BIRTHS, DEATHS, AND MARRIAGES IN ENGLAND.

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REGISTRATION LONDON.*

AREA.—The Area of Registration London is 77,410 acres or 121 square miles, including 2718 acres of tidal water; this is equal to 31,326 hectares, or 313 square kilometres. The length of the streets and roads, as returned in 1882, was more than 1600 miles; and, from that date to the end of 1889, a total length of 129 miles of new streets had been sanctioned. The Area of London being 121 square miles is equal to a square of 11 miles to the side.

ELEVATION.—The population of London resides at a mean elevation of 39 feet (11·9 metres) above Trinity high-water mark; the elevation varying from 11 feet (3·4 metres) below high-water mark in Plumstead Marshes, to 429 feet (131 metres) above high-water mark in Hampstead.

HOUSES.—At the Census in 1881 there were within this area 486,056 inhabited houses, containing an average of 7·9 persons to a house, closely corresponding with the proportions in 1861 and in 1871.

ANNUAL RATEABLE VALUE.—The Annual Rateable Value of Property within Registration London in 1890, as assessed in accordance with the Valuation (Metropolis) Act, 1869, was 31,438,122*l.*† (For Annual Rateable Value of Greater London in 1881 and in 1890, see Table 7.)

DENSITY (1890).—146 persons to a hectare; 59·2 persons to an acre; 37,888 to a square mile. (In these calculations no account is taken of tidal water.)

ANNUAL RATE OF INCREASE OF POPULATION PER CENT. . { 1861–71 . . 1·50 / 1871–81 . . 1·61

1890.

POPULATION (Estimated to the middle of the year.)	Males . 2,082,513 / Females . 2,339,148	PERSONS.	4,421,661
MARRIAGES			36,753
PERSONS MARRIED			73,506
ANNUAL RATE OF PERSONS MARRIED PER 1000 OF THE POPULATION			16·6
BIRTHS	Males . 66,483 / Females . 64,207	PERSONS.	130,690
ANNUAL RATE OF BIRTHS PER 1000 OF THE POPULATION			29·1
DEATHS	Males . 46,981 / Females . 44,262	PERSONS.	91,243
ANNUAL RATE OF MORTALITY PER 1000	Males . 22·2 / Females . 18·6	PERSONS.	20·3
EXCESS OF REGISTERED BIRTHS OVER DEATHS			39,447
ESTIMATED INCREASE OF POPULATION			70,484

* Registration London is co-extensive with the Administrative County of London except that the hamlet of Penge is excluded from Registration London, although forming part of the County of London.

† This information is derived from a return of the Gross and Rateable Value of Property in the Metropolis issued by the London County Council.

ANNUAL SUMMARY.

LONDON,

AND OTHER GREAT TOWNS,

1890.

General Register Office, Somerset House,
2nd March 1891.

The Great Towns.

THE twenty-eight great towns of England and Wales that have a place in the Weekly Returns contained an estimated population of 9,715,559 persons in the middle of 1890. The births recorded among this population in the course of the 53 weeks ending on January 3rd, 1891, were 295,912, and in the proportion of 30·0 per 1000 of the population in a calendar year, the average rate for the preceding eight years having been 33·2. The deaths registered in the 53 weeks were 210,824, giving an annual rate of 21·3 per 1000, the average having been 20·8 in the eight preceding years.

The death-rate varied greatly in the different towns, ranging from 16·5 in Nottingham, 17·8 in Brighton, and 17·9 in Leicester, to 25·9 in Newcastle-upon-Tyne, 27·4 in Preston, and 30·6 in Manchester. Owing, however, to the great differences between one town and another, in regard to the age and sex distribution of their respective populations, these recorded death-rates require correction before they can be justly used for purposes of comparison; and factors were given in the Annual Summary for 1883 by which such correction can be made with approximate accuracy. Applying these factors, we have the corrected rates which are given in the second column of the following Table. In the third column the death-rate for all England and Wales has been taken as 1000, and the corrected rate in each town has been reduced to a figure comparable with that standard. The third column may be read as follows:—After making approximate correction for differences of age and sex distribution, the same number of living persons that in 1890 gave 1000 deaths in England and Wales gave 1186 in the twenty-eight great towns collectively, 910 in Nottingham, 953 in Brighton, 978 in Leicester, &c. &c., 1,472 in Bolton, 1,552 in Preston, and 1,775 in Manchester.

In regard, however, to all these rates, it is to be observed that, at a distance of nearly ten years from the last enumeration, estimates of population, based on the hypothesis that the rate of growth in the last intercensal period has been since maintained, are likely to be more or less inaccurate.

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TABLE A.—RECORDED and CORRECTED DEATH-RATES per 1000 in 28 Great Towns in 1890.

TOWNS, in the order of their Corrected Death-rates.	Recorded Death-rate.	Corrected Death-rate.	Comparative Mortality Figure.
Cols.	1.	2.	3.
ENGLAND AND WALES -	19·19	19·19	1000
ENGLAND AND WALES LESS THE 28 TOWNS -	18·19	17·79	927
28 TOWNS -	21·35	22·75	1186
Nottingham - - -	16·47	17·46	910
Brighton - - - -	17·76	18·29	953
Leicester - - - -	17·92	18·77	978
Derby - - - -	18·51	19·25	1003
Hull - - - -	19·25	19·86	1035
Bristol - - - -	19·21	19·88	1036
Norwich - - - -	21·06	20·14	1050
Portsmouth - - -	19·59	20·18	1052
Huddersfield - - -	18·98	20·84	1086
Birkenhead - - -	19·69	21·06	1097
London - - - -	20·30	21·55	1123
Birmingham - -	20·74	22·12	1153
Plymouth - - -	22·42	22·20	1157
Wolverhampton - -	21·82	22·50	1172
Bradford - - - -	20·39	22·52	1174
Cardiff - - - -	20·76	22·53	1174
Oldham - - - -	21·23	23·56	1228
Sunderland - - -	22·72	23·66	1233
Leeds - - - -	22·63	24·19	1261
Salford - - - -	22·36	24·34	1268
Halifax - - - -	22·46	24·40	1271
Blackburn - - -	23·47	25·58	1333
Liverpool - - -	23·55	25·84	1347
Sheffield - - - -	24·93	26·81	1397
Newcastle-upon-Tyne -	25·87	27·38	1427
Bolton - - - -	25·78	28·25	1472
Preston - - - -	27·43	29·79	1552
Manchester - - -	30·57	34·06	1775

Particulars of the registered mortality are given in Tables 1 to 4. There were in all only 10 deaths from *small-pox*, of which 4 were registered in London, 3 in Hull, and one each in Plymouth, Derby, and Huddersfield; *scarlet fever*, *fever*, and *diarrhœa* also showed considerable declines; while the death-rates from *measles* and from *whooping-cough* tallied almost exactly with the averages in the preceding ten years; *diphtheria* alone showing a notable increase.

The mortality from *measles* was 0·63 per 1000 in the aggregate twenty-eight towns, but varied from 0·03 in Portsmouth, 0·04 in Newcastle-upon-Tyne and in Huddersfield, and 0·08 in Hull, to 0·92 in Bradford, 0·96 in Manchester, and 1·19 in Derby.

The mortality from *scarlet fever* was 0·31 per 1000, the decennial average having been 0·38. It varied, however, from 0·05 in Norwich, 0·07 in Huddersfield, and 0·10 in Brighton and in Derby, to 0·80 in Sheffield and 0·94 in Liverpool.

The mortality from *diphtheria* was 0·24 per 1000, against an average of 0·18 in the previous decennium. The rate did not exceed 0·05 in Oldham, Blackburn, Huddersfield, or Bradford, while it was 0·30 in Newcastle-upon-Tyne, 0·32 in London and in Portsmouth, 0·39 in Manchester, and 0·82 in Salford, in which town the mortality from this disease had shown an excess in each of the two previous years. It must be held in mind that the rates are based on the deaths actually returned as due to diphtheria, and do not include those ascribed to croup.

The mortality from *whooping-cough* was 0·59 per 1000, the previous decennial rate having been 0·60. The lowest rates were 0·10 in Leicester, 0·18 in Blackburn, and 0·19 in Nottingham, while the highest were 0·81 in Brighton, 0·85 in Bristol, 0·87 in Norwich, and 0·93 in Bolton.

The mortality from *continued fevers* was 0·19 per 1000, the previous decennial rate having been 0·26. The lowest rates were 0·10 in Brighton, 0·11 in Oldham, and 0·12 in Birmingham, while the highest were 0·35 in Portsmouth, in Salford, and in Sunderland, and 0·41 in Birkenhead.

The mortality from *diarrhœa* was 0·77 per 1000, the previous decennial average having been 0·89. The rate varied from 0·21 in Halifax, 0·37 in Huddersfield, and 0·41 in Bristol, to 1·19 in Manchester, 1·21 in Blackburn, 1·37 in Leicester, and 2·54 in Preston.

The highest rates from these seven chief zymotic diseases in the aggregate were 3·73 in Bolton, 3·84 in Salford, 4·01 in Manchester, and 4·28 in Preston, while the lowest were 1·83 in Portsmouth, 1·58 in Nottingham, 1·37 in Halifax, and 1·19 in Huddersfield.

The infantile death-rate, or proportion of deaths of infants in the first year of life to 1000 registered births, was 172 in the twenty-eight towns, the previous decennial proportion having been 162; but, while it did not exceed 160 in Portsmouth, Bristol, Nottingham, Derby, or Hull, it was 195 in Leicester, in Liverpool, and in Sheffield, 199 in Salford, and 241 in Preston.

LONDON.

Marriages.

The marriages registered in London, in the year 1890, numbered 36,753, and were in the proportion of 8·3 marriages, or 16·6 persons married, per 1,000 of the estimated population. This was a somewhat higher rate than in any of the three next preceeding years, but otherwise the lowest rate recorded since civil registration began.

Births.

The births registered in London in the year (53 weeks) numbered 130,690, being in the proportion of 29·1 annually to 1000 of the estimated population. This is by far the lowest birth-rate as yet recorded in London, the rate having fallen continuously year by year since 1879, when it was 35·5 per 1,000. As the decline in the birth-rate in 1890 was not counterbalanced by a corresponding decline in the death-rate, as had been the case in each year of the preceding quinquennium, the excess of births over deaths, or natural increment of the population,

amounted only to 39,447, whereas it had averaged 52,659 annually in the five next preceding years.

Deaths.

The deaths registered in the year (53 weeks) numbered 91,243, and corresponded to an annual rate of 20·3 per 1000 of the estimated population. This rate was higher than the rate in any one of the five next preceding years, and was an interruption to the almost unbroken fall in the London mortality that began in 1879. (Table 11.)

In some measure this increase in the rate is accounted for by the inclusion in the London mortality this year, for the first time, of the deaths of Londoners that occurred in certain institutions outside the area of Registration London, namely, the Lunatic and Imbecile Asylums at Banstead, Caterham, Cane Hill, Darenth, Stone, Hanwell, Colney Hatch, and Leavesden. (Table 17.) The deaths thus added numbered 1502*, and their omission would reduce the death-rate to 20·0, which would still be higher than the rate in any of the preceding five years, but lower than the rate in any other year since the New Bills of Mortality began in 1840. (Table 9.)

The deaths in these Institutions are indisputably deaths of Londoners, and should be included in the London death-rate ; but against them are to be set the deaths of strangers who come up to London for medical advice, and die in the wards of London Hospitals and Infirmaries. After making correction, so far as the data permit, for both of these sources of error, the deaths amounted in the year to 89,694, giving a death-rate per 1000 of 20·0. (Tables G. and H.)

Table B. shows in a summary form the amount of life saved and the amount lost in the year, as compared with the previous decennium, under each of the more important headings in the list of causes.

The net loss in the year amounted to 1546 lives; that is to say, had the death-rate been only equal to the average rate in the preceding decennium, 1546 fewer persons would have died in London than was actually the case. The excess, so far as shown in the Table, was under eight headings, and it is to be noted that under four of these, namely, Diphtheria, Cancer, Premature Birth, and Diseases of the Circulatory System, there was also an excess in each of the seven preceding years, while under a fifth heading, namely, Diseases of the Urinary Organs, there was also an excess in six out of the seven years. To those headings, under which there has thus been a persistent increase, were added in 1890, Measles, Whooping-cough, and Diseases of the Respiratory System.

The increased mortality from diseases of the respiratory system was most remarkable. In 1889, as shown in the Annual Summary for that year, there had been a saving under this heading of 4,376 lives, when the year's mortality was compared with the average of the previous decennium ; but in 1890 this saving was transformed into a loss of 2,143 lives. This striking change was entirely due to the enormous mortality from lung diseases in the first and the last months of the year. In

* These are in addition to the deaths in the Strand and Holborn Union Workhouses, and in the Metropolitan Asylum Hospitals outside London, which in previous reports were included in the London mortality.

TABLE B.—DIMINUTION OR EXCESS of DEATHS in 1890, compared with Annual Deaths in 1880–89, corrected for increase of Population.

CAUSE OF DEATH.	Diminution in 1890.	Excess in 1890.
Small-pox	674	—
Measles	—	664
Scarlet Fever	838	—
Typhus	32	—
Whooping-cough	—	193
Diphtheria	—	355
Simple and Ill-defined Fever	54	—
Enteric Fever	218	—
Diarrhœal Diseases	679	—
Cancer	—	349
Phthisis and Tubercular Diseases	539	—
Premature Birth	—	222
Diseases of Nervous System	172	—
Diseases of Circulatory System	—	1,293
Diseases of Respiratory System (including Croup).	—	2,143
Diseases of Urinary System	—	89
Childbirth and Puerperal Fever	95	—
Accident	76	—
Murder, Manslaughter	12	—
Suicide	57	—
All other Causes	316	—
	3,762	5,308
Balance of Diminution and Excess	—	1,546

January there was a sharp, though not very lengthy, outbreak of influenza, and though the deaths directly ascribed to this epidemic influence only numbered 303 in the month, and were not classified among diseases of the respiratory organs but separately in the zymotic class, there can be no doubt that the much larger excess of deaths concomitantly attributed to respiratory diseases were, in reality, cases of influenza. For, in the first place, the enormous and sudden increase in these deaths occurred at a time when the ordinary cause of increased mortality from lung diseases, namely severe cold, was conspicuously absent, the mean temperature in January having in fact been no less than 7°·1 Fahr. above the average for that month. Secondly, the usual winter rise in the mortality from lung diseases takes place under the heading bronchitis in a much greater degree than under the heading pneumonia; whereas the reverse was the case in the first month of 1890, for, while the mortality under bronchitis rose only 64 per cent. above the January average, the mortality under pneumonia rose 97 per cent. And, thirdly, while the ordinary rise of mortality in cold seasons is mainly among the very aged, the increased mortality in this fatal month was mainly among persons between 20 and 60.

These facts are shown very distinctly in the following table, in which are given the annual rates of mortality from bronchitis and pneumonia respectively, in the

winter months of 1887-8-9, in four selected especially cold seasons, and in January 1890.

TABLE C.—LONDON MORTALITY from BRONCHITIS and PNEUMONIA per million persons living at different ages.

Periods.	All Ages.	0—5.	5—20.	20—40.	40—60.	60 and upwards.
	BRONCHITIS.					
January to March 1887-8-9	3,616	9,568	133	328	3,606	25,602
Four Cold Periods 1874-78-79-80	7,746	17,851	274	1,008	9,080	54,684
January 1890	6,908	13,605	253	1,312	10,564	45,002
	PNEUMONIA.					
January to March 1887-8-9	1,348	4,846	279	524	1,426	3,418
Four Cold Periods 1874-78-79-80	2,090	8,317	354	901	1,970	4,101
January 1890	2,777	6,972	468	2,043	4,344	4,880

The excessive mortality, then, from lung diseases in the first month of 1890 was due to the same cause as were the deaths ascribed to influenza. The excess in the last month of the year, on the other hand, which, though not so great as the earlier excess had been, was nevertheless sufficiently formidable, inasmuch as the mortality from lung diseases was 44 per cent. above the average for the ten previous Decembers, was doubtlessly in the main due to the usual cause of such excess, namely, prolonged cold, the mean temperature in the month having been 9°·3 F. below the December average, and accompanied moreover by a succession of dense fogs; and accordingly the excess was no longer higher under pneumonia than under bronchitis, as had been the case in January, but in almost equal proportions under the two headings; the death-rate from the former having been 48 and from the latter 47 per cent. above the December average. Even in this month, however, a comparison of the figures just given with those in Table C. will show that pneumonia increased, as compared with bronchitis, in far more than the usual winter or cold season proportion; and this fact suggests the suspicion that even in last December there was some unhealthy influence at work beyond ordinary cold weather.

The effects, then, of the epidemic influence in January 1890 must not be measured simply by the number of deaths ascribed to influenza. The excess of mortality from lung diseases in that month at least must also be included in the account; and there is much reason to suspect that a very large number of deaths under other headings should also be similarly included; inasmuch as otherwise inexplicable rises occurred under them. Thus the mortality from phthisis suddenly shot up in the first week of January, and remained far above the average for ten weeks in succession, although the death-rate from this disease in London had been declining for years past, and

was below the average in almost every week of 1890, excepting these first ten. A similarly sudden increase occurred among deaths from diseases of the organs of circulation, which during the month of January were as much as 55 per cent. above the usual January average; and although it is true that the mortality from this group of diseases has long been increasing, the suddenness and the extent of the increase in January was far in excess of this gradual rise. In short it would probably not be far from the truth if the whole increase in mortality from all causes in the aggregate during the mild month of January were attributed to influenza; in which case that disease would have to be credited with having caused 2,258 deaths in London in the first four weeks of the year alone.

Only four deaths were caused by *small-pox* in the year; this being the fifth successive year in which London has been practically free from the disease; for in the whole quinquennium there were only 47 deaths under this heading, 9 of which were of unvaccinated persons, 16 of vaccinated persons, while concerning the antecedents of the remaining 22 there was no information.

The mortality from *measles* showed its usual phenomenon of two maximum points, the annual curve being in the form of a double wave with one apex in the summer and the other in the winter; but, while the mortality was below the previous decennial average throughout the first four months of the year, in the remaining eight months it was very considerably above it, the total deaths in the twelve months amounting to 3,291, and giving a death-rate of 0·73 per 1000, against an average in the preceding ten years of only 0·58.

The deaths ascribed to *scarlet fever* were 876, and in the proportion of 0·19 per 1000 living, the previous decennial average having been 0·39. For seven consecutive years the mortality from scarlet fever has been largely below the previous average; and, though it would be rash to assert that this reduction is certainly due to the increased facilities for isolation afforded by the Metropolitan Asylum Hospitals, it is at any rate a noteworthy fact that the reduction has occurred simultaneously with a constantly increasing use of those hospitals for cases of this disease. In 1878 only seven per cent. of the total deaths from this disease occurred in the London Fever and Metropolitan Asylum Hospitals, from which date the proportion has risen year by year, until in 1890 it reached 62·2 per cent.

The deaths from *whooping-cough* numbered 3,276, and were in the proportion of 0·73 per 1000 living, the average for the preceding ten years having been 0·69. The mortality was as usual highest in the winter months, but it was not in this season alone that the excess above the average occurred. For from mid April to the end of September it was in every week but one in excess of the average for the corresponding weeks.

The deaths from *diphtheria* numbered 1,417, giving a rate of 0·32 per 1000 living. The rate in the next preceding year had been 0·37, but, with this one exception, the rate in 1890 was the highest yet recorded in London (Table 12). In the three years 1888–89–90 the rate averaged 0·33, whereas the average rate in the ten preceding years 1878–87 had been only 0·20.

It is probable that some part of the increase under diphtheria may be due to a diminution under the heading croup, which in accordance with the classification of the College of Physicians is separated from diphtheria and placed with respiratory

diseases. But this can only be a partial explanation of the rise, for the deaths from diphtheria and croup together amounted in 1890 to 1,908, while the decennial average, after due correction for increase of population, would have been only 1,781.

The following Table shows the number of deaths from this disease for each of the last four years in each sanitary area, the deaths in public institutions having been distributed to the areas from which the patients had been admitted.

TABLE D.—DEATHS from DIPHTHERIA in the METROPOLITAN SANITARY AREAS in the FOUR YEARS 1887, 1888, 1889, and 1890, after Distribution of those occurring in Hospitals.

Sanitary Area.	1887.	1888.	1889.	1890.	Sanitary Area.	1887.	1888.	1889.	1890.
Paddington	29	76	42	40	Shoreditch	27	32	69	58
Kensington	40	91	111	34	Bethnal Green	27	52	102	116
Hammersmith	44	38	45	49	Whitechapel	6	24	34	51
Fulham	19	10	12	22	St. George-in-the-East	15	15	43	30
Chelsea	19	14	24	56	Stepney	14	25	47	28
St. George Hanover Square	13	46	30	13	Mile End Old Town	22	20	53	44
Westminster	25	37	28	9	Poplar	30	42	64	70
St. James Westminster	3	5	2	3	St. Saviour Southwark	8	13	12	5
Marylebone	14	23	34	27	St. George Southwark	12	23	20	14
Hampstead	13	16	8	21	Newington	27	18	55	32
Pancras	62	72	62	132	St. Olave Southwark	2	4	1	4
Islington	46	50	63	81	Bermondsey	16	14	23	19
Hackney	40	76	97	67	Rotherhithe	6	8	16	8
St. Giles	23	11	17	10	Lambeth	105	107	156	76
St. Martin-in-the-Fields	5	3	2	1	Wandsworth and Battersea	51	92	77	62
Strand	10	3	8	4	Camberwell	65	64	70	51
Holborn	9	5	17	18	Greenwich	37	34	30	47
Clerkenwell	17	26	24	19	Lewisham	11	31	5	15
St. Luke's	12	10	13	16	Woolwich	3	3	6	5
London City	5	11	12	11	Plumstead	19	24	18	19

It appears from this Table that, while the outbreak showed signs of subsidence in 1890 in some of the districts in which it had previously been very severe, for instance, in Kensington, St. George Hanover Square, and Lambeth, in many other districts it had become more severe, for instance, in Chelsea, Hampstead, Pancras, Islington, Bethnal Green, Whitechapel, and Greenwich.

There is an increasing tendency to make use of the Metropolitan Hospitals in cases of diphtheria, for while, in 1889, 17·3 per cent. of the deaths from this disease occurred in the Metropolitan Asylum or London Fever Hospitals, the proportion rose in 1890 to 22·7 per cent. It will be of much interest to observe whether further extension of such recourse to hospitals will be accompanied, as in scarlet-fever, by a diminution of mortality.

The deaths from *diarrhœa*, *dysentery*, and *simple cholera* numbered 2836, giving a rate of 0·63 per 1000 living, the preceding decennial average having been 0·79. This reduction was due to the absence of any prolonged period of hot weather, the temperature in June, July, and August having been considerably below the average.

The deaths ascribed to *typhus* and to *ill-defined forms of continued fever* were respectively 11 and 33, figures far below the corrected annual averages for the preceding decennium, which had been 43 and 87 respectively. The deaths from *enteric fever* were also far below the decennial average, being 618, while the average was 836.

Outside the zymotic class, there were notable increases of mortality under alcoholism, rickets, cancer, premature birth, epilepsy, enteritis, and, as already mentioned, diseases of the circulatory and of the respiratory organs. Moreover, under all of these headings, with the exception of rickets, epilepsy, and diseases of the respiratory system, there had been notable increases in the preceding year, and under most of them a progressive increase dating from an earlier period (Table 13).

It was suggested in the last Summary that the increasing mortality from enteritis might possibly be connected with the decrease under enteric fever. But, seeing what a large proportion of the deaths ascribed to enteritis are deaths of infants and young children (Table 14), it seems more probable that the increase may be due to medical men ascribing to enteritis many deaths which they formerly would have been contented to assign to the symptom diarrhœa.

The deaths from *violence* were considerably below the decennial average under each of the main divisions. The corrected average would have given 85 deaths from *murder* and *manslaughter*, 408 from *suicide*, and 2,736 from *accident* or *negligence*, whereas the recorded deaths under these headings were respectively 73, 351, and 2,660.

Among the accidental deaths no less than 636, or nearly a quarter of the whole, were of infants in the first year of life, suffocated in bed by the negligence of their parents. This form of negligence, as was noted in the last Annual Summary, is apparently increasing, and the increase may very possibly be connected with the corresponding increase in the deaths from alcoholism, for that a very common, if not the commonest, cause of the overlying of children is the drunkenness of their parents is the natural inference from the fact that twice as many of these deaths occur on Saturday night as on any other night in the week.

According to Captain Shaw's Report, 61 persons lost their lives during the year in the 2,555 fires to which his brigade was summoned; while there were 270 deaths caused by horses or conveyances in the streets.

The following table shows the number of deaths caused by horses and by different kinds of vehicles:—

TABLE E.

Year.	Description of Vehicle, &c.								Total.
	Horse, &c.	Carriage.	Omnibus.	Tram-car.	Cab.	Cart.	Van, wagon, dray.	Others, and not described.	
1873	13	10	12	17	28	56	79	2	217
1874	28	11	17	14	33	36	67	5	211
1875	11	15	18	9	39	55	82	2	231
1876	13	4	17	12	24	56	84	7	217
1877	16	13	13	4	26	56	97	2	227
1878	17	12	14	10	34	63	84	3	237
1879	16	13	17	18	36	57	74	5	236
1880	12	11	20	17	39	43	76	2	220
1881	13	14	21	23	31	58	88	4	252
1882	12	15	19	23	37	60	100	5	271
1883	6	12	16	25	57	45	57	4	222
1884	12	11	33	18	57	51	74	9	265
1885	12	20	14	11	55	55	89	10	266
1886	10	7	21	9	39	49	111	5	251
1887	13	7	18	19	51	49	85	9	251
1888	5	15	25	9	41	47	91	4	237
1889	15	10	29	12	52	40	83	13	254
1890	3	11	22	18	43	44	109	20	270

Deaths in Workhouses, Hospitals, and Public Lunatic and Imbecile Asylums.—Of the 91,243 deaths registered in the 53 weeks of 1890, 21,881, or 24·0 per cent., occurred in public institutions, the proportion having been 24·5 per cent. in the preceding year. The total percentage of 24·0 included 12·3 in workhouses, 1·1 in Metropolitan Asylum Hospitals, 8·5 in other hospitals, and 2·1 in lunatic and imbecile asylums. Thus, about 1 in 8 of the deceased persons died in a workhouse, 1 in 90 in a Metropolitan Asylum Hospital, 1 in 12 in some other hospital, and 1 in 48 in an asylum for lunatics or imbeciles.

TABLE F.

	1885.	1886.	1887.	1888.	1889.	1890.
Deaths in Public Institutions	18,630	18,109	18,255	18,858	18,869	21,881
Workhouses*	9,512	9,708	9,285	9,603	9,503	11,263
Metropolitan Asylum Board Hospitals (in or out of London)	1,248	248	624	683	729	1,019
Other Hospitals	6,592	6,769	6,972	7,093	7,054	7,717
Lunatic Asylums†	1,278	1,384	1,374	1,479	1,583	1,882

* Including the Strand Union Workhouse at Edmonton, and the Holborn Union Workhouse at Mitcham.
† Including the City of London, London County, and Metropolitan Lunatic and Imbecile Asylums situated outside Registration London.

Mortality in different parts of London.—The distribution of the registered mortality in London is seriously affected by the hospitals. For purposes of fair comparison between one district, or one group of districts, and another, it is necessary to make correction for this disturbing element. The following Table has, therefore, been constructed, in which the hospital deaths have been transferred to the districts from which the deceased had been admitted, and certain other corrections have been made as explained in the note to the Table.

TABLE G.—DEATHS BELONGING to the SEVERAL SANITARY AREAS of REGISTRATION LONDON, registered in the 53 WEEKS of 1890.

SANITARY AREAS.	Deaths.	Deaths from Principal Zymotic Diseases.									Deaths of Infants under 1 Year of Age.	Deaths under 1 Year to 1000 Births registered.
		Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric Fever.	Simple and Ill-defined Fever.	Diarrhœa.		
REGISTRATION LONDON	89,694	3	3,285	861	1,387	3,272	11	592	33	2,744	21,171	162
WEST.												
Paddington	2,109	-	79	7	40	80	-	9	1	58	451	155
Kensington	2,983	-	141	27	34	93	-	15	-	77	661	171
Hammersmith	1,910	-	95	17	49	75	-	14	-	96	484	171
Fulham	1,908	-	125	32	22	69	-	19	-	112	571	182
Chelsea	2,047	-	56	19	56	53	-	11	1	46	415	150
St. George Hanover Square	1,343	-	47	3	13	48	-	7	1	25	247	155
Westminster	1,454	-	34	11	9	50	-	3	2	33	236	160
St. James Westminster	521	-	13	3	3	12	-	4	-	12	98	178
NORTH.												
Marylebone	3,313	1	123	14	27	96	-	18	3	93	636	143
Hampstead	899	-	18	11	21	21	-	11	-	25	183	122
Pancras	5,161	-	125	27	132	153	-	34	1	149	1,161	164
Islington	6,198	-	202	65	81	204	-	34	5	180	1,488	158
Hackney	4,178	-	157	58	67	178	-	36	4	118	965	143
CENTRAL.												
St. Giles	1,042	-	17	8	10	16	-	8	-	21	184	156
St. Martin-in-the-Fields	325	-	8	1	1	6	-	5	-	3	56	210
Strand	730	-	20	2	4	13	-	2	1	16	126	211
Holborn	967	1	22	15	18	28	-	7	-	31	204	223
Clerkenwell	1,645	-	34	22	19	65	-	8	-	68	385	175
St. Luke's	1,308	-	48	20	16	58	-	6	-	41	286	146
London City	975	-	11	5	11	11	-	3	-	12	112	147
EAST.												
Shoreditch	3,164	-	121	45	58	170	1	20	3	115	782	175
Bethnal Green	3,199	-	111	39	116	115	-	29	1	91	780	162
Whitechapel	1,947	-	70	19	51	57	-	17	-	68	515	185
St. George-in-the-East	1,618	-	68	20	30	56	-	9	1	75	431	234
Stepney	1,611	-	100	13	28	73	-	15	-	49	371	195
Mile End Old Town	2,517	-	79	25	44	122	-	24	-	74	660	161
Poplar	3,883	-	199	41	70	154	1	40	1	113	996	168
SOUTH.												
St. Saviour Southwark	773	-	51	11	5	34	-	3	-	20	166	185
St. George Southwark	1,859	-	57	15	14	69	1	4	1	57	429	209
Newington	2,757	-	103	37	32	87	1	18	-	84	684	171
St. Olave Southwark	317	-	4	6	4	13	1	2	-	14	65	145
Bermondsey	2,046	-	75	30	19	76	3	10	-	67	467	152
Rotherhithe	931	-	38	7	8	50	-	6	-	35	241	170
Lambeth	5,862	-	183	57	76	194	-	31	3	154	1,370	152
Battersea	2,899	-	160	19	40	148	-	27	4	122	862	189
Wandsworth	2,471	-	89	9	22	99	-	20	-	84	609	148
Camberwell	4,435	-	165	51	51	198	1	28	-	119	1,110	152
Greenwich	3,235	-	127	27	47	94	1	19	-	108	857	159
Lewisham (excluding Penge)	1,042	-	17	4	15	39	-	6	-	27	243	141
Woolwich	905	-	52	4	5	28	-	4	-	19	216	171
Plumstead	1,407	1	41	15	19	67	1	6	-	33	368	129

NOTE.—In the above Table 1,689 deaths in Hospitals and in other Public Institutions (namely the Strand Union Workhouse at Edmonton, the Holborn Union Workhouse at Mitcham, the Metropolitan Asylum Hospitals, and the County and Metropolitan Lunatic and Imbecile Asylums) situated outside Registration London have been distributed to the sanitary areas from which the deceased inmates were admitted; while the deaths of 1,543 non-residents who died in Public Institutions inside London have been excluded.

If the figures in this Table be taken as the basis, and the rates calculated afresh, and if it be assumed that the rates of increase or decrease of population between 1871 and 1881 in the five great groups of districts have since been maintained, we obtain the following results.

TABLE H.—BIRTH- and DEATH-RATES of PERSONS *belonging to* LONDON and its GROUPS of REGISTRATION DISTRICTS, in the 53 weeks of 1890.

	PER 1000 PERSONS LIVING.												
		Deaths from											
	Births.	All Causes.	Principal Zymotic Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric Fever.	Simple and Ill-Defined Fever.	Diarrhœa.	Deaths under 1 Year to 1000 Births registered.
REGISTRATION LONDON*	29·1	20·0	2·71	0·00	0·73	0·19	0·31	0·73	0·00	0·13	0·01	0·61	162
West Districts	24·3	18·2	2·50	–	0·75	0·15	0·29	0·61	–	0·10	0·01	0·59	165
North Districts	26·7	18·1	2·28	0·00	0·57	0·16	0·30	0·60	–	0·12	0·01	0·52	152
Central Districts	34·6	30·7	3·26	0·00	0·70	0·32	0·35	0·86	–	0·17	0·00	0·86	171
East Districts	34·3	23·8	3·77	–	0·99	0·27	0·53	0·99	0·00	0·20	0·01	0·78	176
South Districts	29·8	18·8	2·54	0·00	0·71	0·18	0·22	0·73	0·01	0·11	0·00	0·58	158

* The rates for Registration London given in this Table do not precisely correspond with those given in Table 9, as in calculating the rates given above the deaths of non-residents occurring in hospitals have not been included.

Uncertified Causes of Death.—Of the total deaths registered in London, the causes of 821, or 0·9 per cent., were not certified either by a registered medical practitioner or by a coroner (Tables 1 and 2); in the preceding five years the proportion had varied from 1·3 to 1·0 per cent. In the twenty-seven large provincial towns in the aggregate the proportion of uncertified deaths was 2·9 per cent., ranging in the individual towns, however, from 0·6 in Plymouth, 0·7 in Portsmouth, and 0·9 in Derby, to 4·9 in Sheffield, 5·5 in Halifax, and 6·1 in Liverpool. The three last-mentioned towns also showed high proportions in the preceding three years.

GREATER LONDON.—The estimated population of Greater London (Table 8), which is co-extensive with the Metropolitan and City Police Districts, was 5,758,500 in the middle of 1890. The mortality among this population was 19·4 per 1,000, the rate in the preceding four years having continuously declined from 19·3 to 16·8 per 1000. Transferring deaths that occurred in Metropolitan Institutions situated in the Outer Ring to Inner or Registration London, and omitting from the latter deaths of non-residents which occurred in Metropolitan Institutions, the death-rate in Inner London was 20·0, while in the Outer Ring it did not exceed 16·5, per 1,000. Compared with the mean rates in the preceding three years, the death-rate in 1890 in Inner London showed an excess of 8·3 per cent., and that in the Outer Ring an excess of 8·8 per cent. The excess in the death-rate from the principal zymotic diseases, however, was proportionately greater in the Outer Ring than in Inner London; for while the rate in Inner London was 2·73 per 1,000 and not more than 5·1 per cent. above the mean rate in the preceding three years, the rate in the Outer Ring was 2·45 per 1,000, and 23·1 per cent. above the average annual rate of the same period. Infant mortality, measured by the

proportion of deaths under one year to registered births, was in the ratio of 157 per 1,000 in Greater London, the proportion having declined in the preceding three years from 152 to 136. In Registration London the proportion was 163, while in the Outer Ring of suburban districts it was 139.

Health of Foreign Cities.—In Table 5 are given statistics of mortality furnished by the local authorities of the principal European and other Foreign cities, and also those of some Colonial cities. In the Indian cities the death-rate was highest, namely, 42·9 per 1,000 in Madras, 28·5 in Calcutta, and 26·6 in Bombay. *Small-pox* caused 700 deaths in Calcutta, 153 in Bombay, and 74 in Madras. There was a high mortality, as usual, in these towns from *fever*. In twenty-two European cities the lowest death-rates were 19·6 in Stockholm, 21·1 in Christiania, and 21·5 in Brussels and in the Hague; while the highest were 30·0 in Munich, 31·4 in Buda-Pesth, and 40·3 in Moscow. The rate was 21·6 in Berlin, 24·5 in Paris, and 24·6 in Vienna, against 20·3 in London. *Small-pox* caused 525 deaths in Venice, 233 in St. Petersburg, 80 in Paris, and 70 in Brussels. The death-rate from *scarlet fever* showed excess in St. Petersburg and in Stockholm; *diphtheria* was especially fatal in Copenhagen, Christiania, Breslau, Munich, and Buda-Pesth; and "*fever*" mortality was high in St. Petersburg, Moscow, Hamburg, Buda-Pesth, and Rome (in the last-named town mostly of the malarial type). Many deaths were attributed to *diarrhœal diseases* in St. Petersburg, Moscow, Berlin, Breslau, Munich, and Buda-Pesth. In Cairo the general death-rate was 44·8, and in Alexandria it was 39·6 per 1000, these high rates being largely due to excessive mortality from fever and diarrhœal diseases. In the American cities the death-rate from all causes ranged from 18·7 in St. Louis to 28·5 in New Orleans. In most of these towns there was a considerable mortality from diphtheria.

Seasonal Mortality.

In the Annual Summary for 1880 a series of diagrams was given, exhibiting the seasonal mortality in London from some of the more important causes of death, and especially from the chief zymotic affections. Ten years having elapsed since that publication, it has been thought advisable to give a new series of diagrams based on the extended experience.

The diagrams have been constructed on the same plan as was adopted in 1880. Diagrams 1 and 2, relating to "Deaths from All Causes," and "Deaths from Diseases of the Respiratory Organs and from Diarrhœa," show the actual average deaths in each week, and require no further explanation. The other diagrams are constructed on a different plan. The thick horizontal line represents the mean weekly mortality from the disease to which the diagram relates, on the supposition that the mortality is spread equally over the 52 weeks of the year, the 53rd week, when it occurs, being ignored. The curved line represents the amount per cent. by which the average mortality in each week differs from this mean. When the percentage for any week is above the mean, the amount of the percentage excess is marked above the horizontal line representing the mean; and when the percentage is below the mean it is marked below the line.

In most cases the curves are based on 50 years experience; in some, however, the basis is a somewhat shorter period; but the length of the period taken as a basis is stated in each case on the diagram. It must be remembered that the data on which the curves are formed are the deaths registered in each week, not the deaths

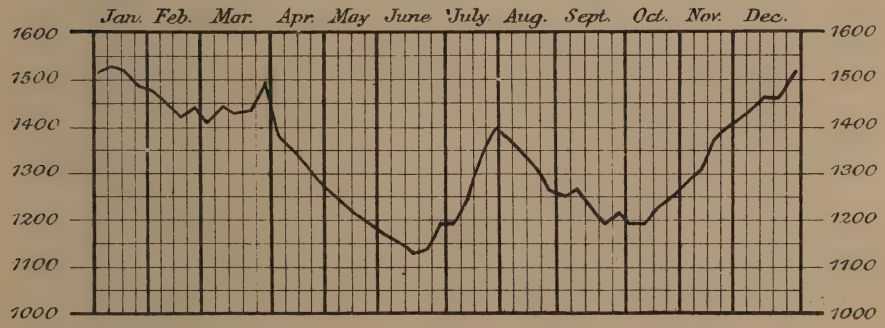
that occurred in the week, and that the registration is usually a few days after the death; and, secondly, that the curves relate to deaths, that is the final termination of the attack of illness, and not its commencement; so that in estimating the effect of season in generating any disease, allowance must be made for the average duration of such disease when fatal. It is, moreover, possible that the curve of mortality may for another reason not accurately represent the curve of prevalence. For it may be that an attack of a given disease is more likely to terminate fatally if it occurs at one season than if it occurs at another. Thus it is neither impossible nor improbable that a child attacked by whooping-cough in the cold weather is more likely to die than a child similarly attacked in the summer; and the excess of mortality from this disease in the early spring months, shown in diagram 5, may very possibly be in part thus explicable.

When any of the diseases are treated on a large scale in Public Hospitals, and account has been kept for a sufficient period of years of the weekly admissions, we can of course construct admission curves which will be free from these several defects, and will give a more accurate representation of the seasonal prevalence. Admission curves should, therefore, when possible, be taken in preference to mortality curves. Unfortunately in the case of most of the diseases there are no data for the construction of these admission curves; and even with small-pox, scarlet fever, and enteric fever the period of years for which the data are procurable is as yet scarcely long enough to give a sufficiently secure basis, and to exclude the chance fluctuation caused by some unusually extensive epidemic, occurring perhaps at some comparatively abnormal season. How essential it is to have experience of a long period of years for the construction of these curves will at once be seen if the small-pox admission curve (Diagram 4), based on fifteen years experience, be compared with the admission curve, based on only five years experience, which was given in the Annual Summary for 1880; for the two curves differ very materially, the winter prevalence of the disease being vastly exaggerated in the earlier diagram.

Taking these admission curves as now constructed (Diagrams 4, 8, 11), it is of some interest to compare them with the corresponding mortality curves (Diagrams 3, 7, 10). We should anticipate that, as the former relate to the commencements of the attacks and the latter to their terminations when fatal, the maximum and minimum points in the former would precede the maximum and minimum points in the latter; and to a certain extent, though not quite so decidedly as might be expected, this is the case. We should also expect that the seasonal differences in the admission curves would be much more strongly marked than in the death curves; for the deaths that occur among the attacks of a given week will not all occur in one other later week, but will occur gradually and be spread over several successive weeks; so that while the number of attacks in a given week will be represented by a single point, the deaths corresponding to those attacks will be represented by a more or less extended line, uniting successive points in several weeks, the number of which will depend upon the duration of the disease. The death curves, in short, should be flattened out in comparison with the admission curves, and the flattening should be greater the longer the usual duration of the disease. An examination of the curves shows that this anticipation is fulfilled. The three mortality curves are all more or less flattened as compared with the admission curves; and the flattening is greatest in the enteric fever curve, the average duration of this disease being the longest; and is least in the scarlet fever curve, in which disease the average duration is the shortest.

DIAGRAM I.-AVERAGE WEEKLY DEATHS FROM ALL CAUSES.

(50 Years 1841-90.)



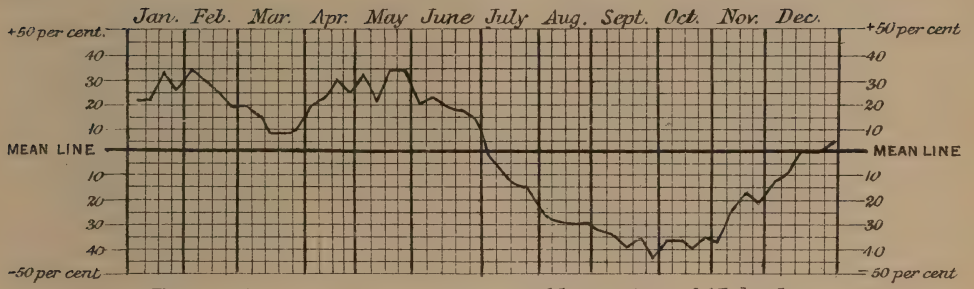
Judd & Co. Lith. 73 & 75, Farringdon Rd & Doctors' Commons. 2186. 3. 91

DIAGRAM 2.-AVERAGE WEEKLY DEATHS FROM RESPIRATORY ORGANS & DIARRHŒA.

(50 Years 1841-90.)

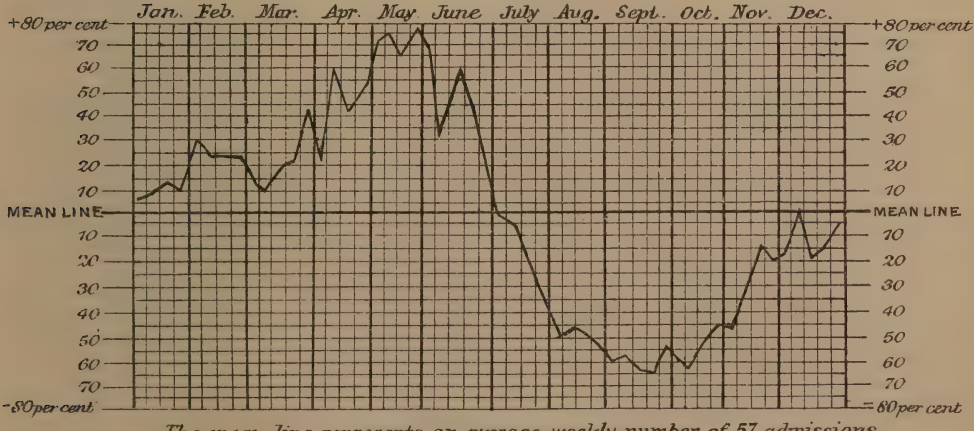
Judd & Co Lith. 73 & 75. Farringdon Rd & Doctors' Commons '2186. 3. 91

DIAGRAM 3.–SMALLPOX.
(50 Years 1841–90)



The mean line represents an average weekly number of 17 deaths.

DIAGRAM 4–MEAN ADMISSIONS OF SMALL POX PATIENTS TO THE METROPOLITAN ASYLUM AND HIGHGATE HOSPITALS.
(15 Years 1876–90)



The mean line represents an average weekly number of 57 admissions

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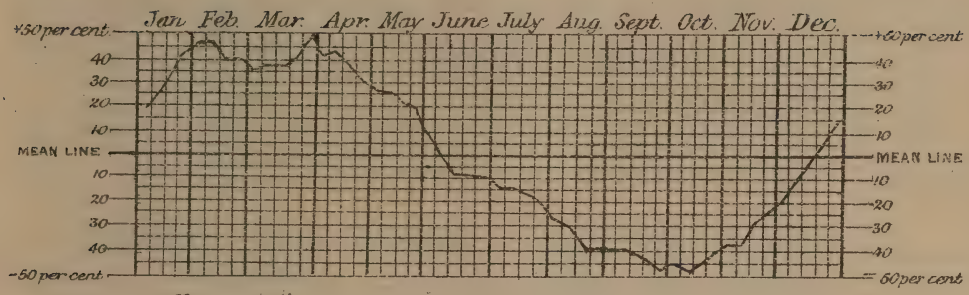
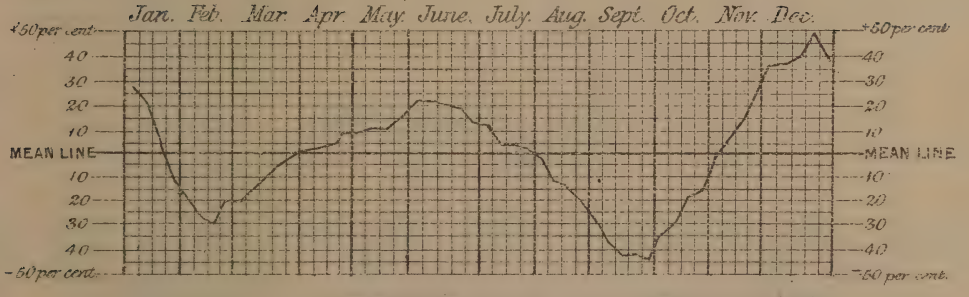
DIAGRAM 5.-WHOOPING COUGH.
(50 Years 1841-90)



The mean line represents an average weekly number of 47 deaths

DIAGRAM 6.-MEASLES.
(50 Years 1841-90)

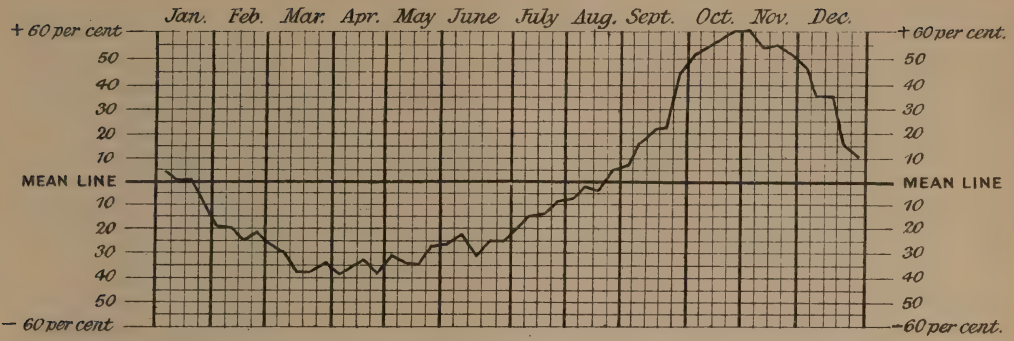


The mean line represents an average weekly number of 34 deaths.

Judd & Co Lith. 73 & 75, Farringdon Rd & Doctors' Commons. 2196 S. 91

DIAGRAM 7._ SCARLET FEVER.

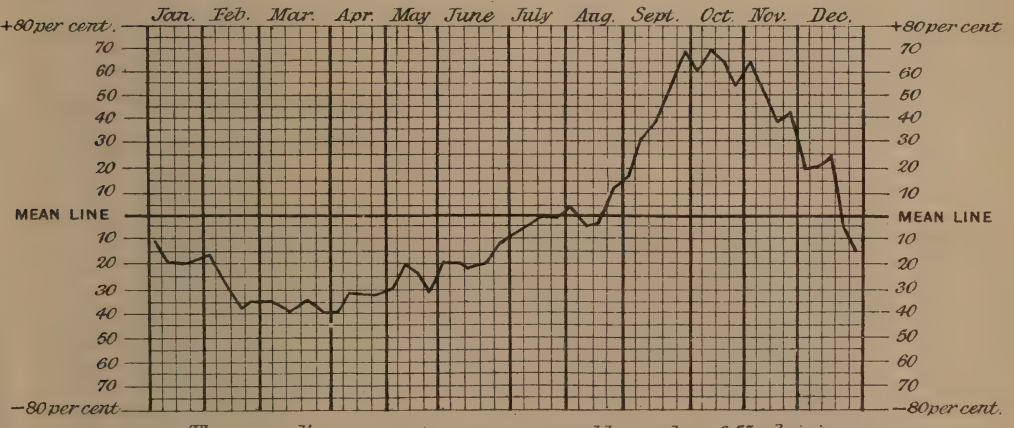
(30 years 1861-90)



The mean line represents an average weekly number of 44 deaths.

DIAGRAM 8._ MEAN ADMISSIONS OF SCARLET FEVER PATIENTS TO THE METROPOLITAN ASYLUM AND LONDON FEVER HOSPITALS.

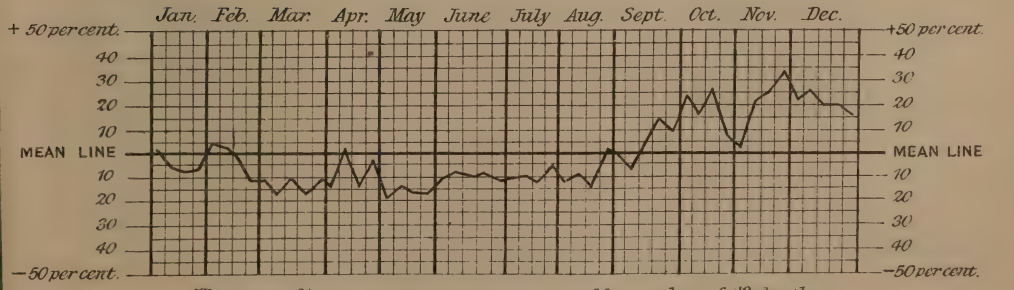
(16 years 1875-90.)



The mean line represents an average weekly number of 55 admissions.

DIAGRAM 9._ DIPHTHERIA.

(30 years 1861-90)



The mean line represents an average weekly number of 13 deaths.

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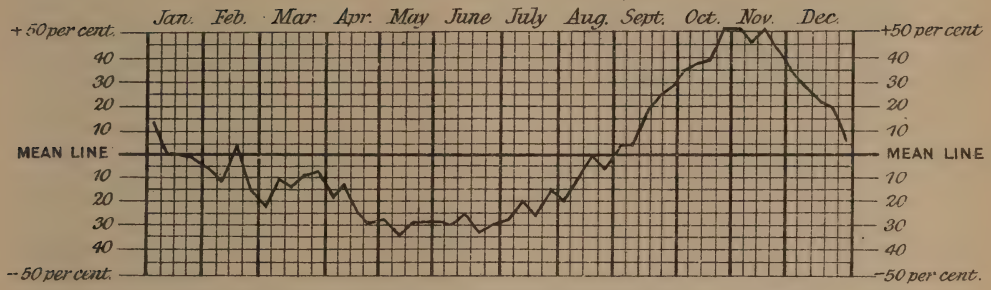
DIAGRAM 10._ ENTERIC FEVER.

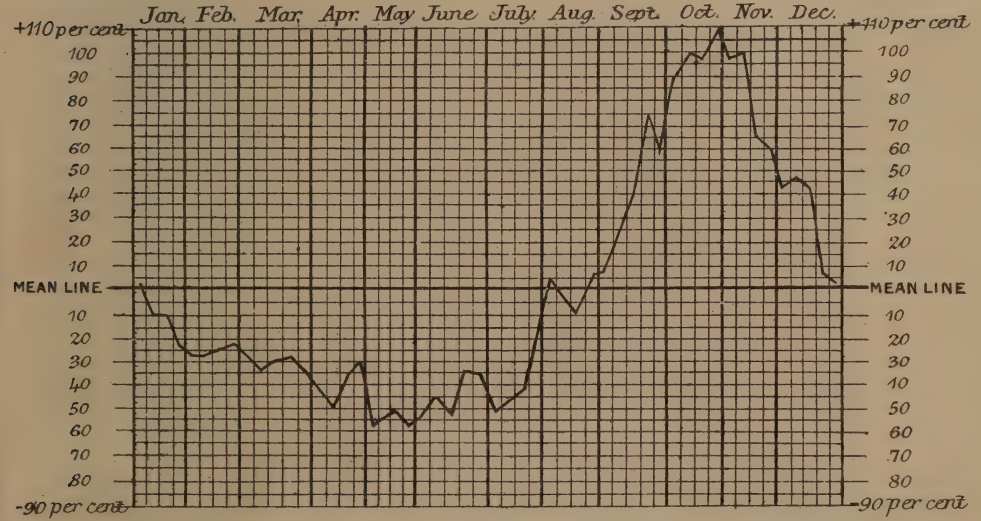
(22 years 1869-90.)



The mean line represents an average weekly number of 16 deaths.

DIAGRAM 11-MEAN ADMISSIONS OF ENTERIC FEVER PATIENTS TO THE METROPOLITAN ASYLUM AND LONDON FEVER HOSPITALS

(16 Years 1875-90)



The mean line represents an average weekly number of 9 admissions

Judd & Co Lith. 73 & 75, Farringdon Rd & Doctors' Commons. 2/98.3.91.

This comparison gives us a notion of the changes that we must make in the mortality curves of the other diseases, in order to make them more closely represent the curves of seasonal prevalence. We must push the curves somewhat further back, so as to make maximum and minimum come respectively at a somewhat earlier date ; and we must raise this maximum and lower this minimum to an extent determined by the number of weeks through which fatal attacks of the disease with whose curves we are dealing may extend.

The curves tell their own story sufficiently distinctly to make it unnecessary to describe them severally in detail. They may, however, for convenience be classed in groups, according as the curve consists of a single or a double annual wave, and according to the periods of the year in which the wave or waves reach their highest and lowest points. The curves for diarrhœa and for diseases of the respiratory organs (Diagram 2) are distinctly single waves, the former with its crest in the summer, the latter in the winter ; and it is the combination of these two very marked seasonal curves that mainly determines the double wave outline of the curve (Diagram 1) of mortality from all causes. The curves for scarlet fever (Diagrams 7 and 8), diphtheria (Diagram 9), and enteric fever (Diagrams 10 and 11), are also single wave curves, closely resembling each other, in that in each of them the wave rises to its crest in October and November, while the trough extends from February to August. In strong contrast with this group are the curves of small-pox (Diagrams 3 and 4), and of whooping-cough (Diagram 5), which cover with their crests January to June, while their troughs extend over the rest of the year. These curves, moreover, show some tendency to consist of two waves, for in each there is a slight but, nevertheless, distinct depression in the months of February and March. There remains the curve of measles (Diagram 6), which consists unmistakably of two waves, having their crests respectively in June and in December, while they fall to their lowest levels in February and September.

The effects of small-pox and whooping-cough upon the general seasonal mortality are practically effaced by the almost exactly contrary effects of scarlet fever, diphtheria, and enteric fever; and thus the general outline of the curve of mortality from all causes (Diagram 1) is mainly determined, so far as the diseases now considered affect it, by a combination of the curves for diseases of the respiratory organs, for diarrhœa, and, in a lesser degree, for measles.

TABLE 1.—28 Towns.—Population; Births, Deaths, and Meteorology, in the 53 Weeks of 1890.

CITIES AND BOROUGHS.	POPULATION, Estimated to the middle of 1890.*	Persons to an Acre.	BIRTHS.	DEATHS.	The DEATHS registered in the 53 Weeks include: Deaths of: Infants under 1 Year of Age.	Deaths of: Persons aged 60 Years and upwards.	Deaths from: Principal Zymotic Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Fever.	Diarrhœa.	Violence.	Inquest Cases.	Deaths in Public Institutions.	Uncertified Causes of Death.	MEAN TEMPERATURE.	RAIN-FALL (Inches).	CITIES AND BOROUGHS.
Cols.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.	20.	Cols.
28 TOWNS	9,715,559	38·6	295912	210824	50754	47766	26935	10	6194	3029	2350	5795	1879	7678	6901	13751	38167	4233	47°3	25·21	28 TOWNS.
LONDON†	4,421,661	59·2	130690	91243	21252	21885	12279	4	3291	876	1417	3276	662	2753	3088	6631	21881	821	48·6	21·88	LONDON.†
BRIGHTON	123,659	49·2	2915	2232	479	611	299	–	61	12	14	102	12	98	67	80	314	68	48·2	26·41	BRIGHTON.
PORTSMOUTH	142,952	33·1	4881	2847	661	811	266	–	4	19	47	38	51	107	81	189	453	21	–	–	PORTSMOUTH.
NORWICH	95,352	12·8	3198	2041	576	630	295	–	33	5	27	84	31	115	46	122	187	24	–	–	NORWICH.
PLYMOUTH	78,780	53·7	2498	1795	403	550	219	1	58	29	15	30	25	61	50	130	209	11	49·9	36·53	PLYMOUTH.
BRISTOL	232,248	50·1	6634	4536	999	1272	482	–	94	39	13	201	35	100	141	280	729	107	47·9	25·32	BRISTOL.
WOLVERHAMPTON	83,406	24·6	2735	1850	478	464	157	–	33	13	5	27	11	68	62	110	310	23	45·3	20·12	WOLVERHAMPTON.
BIRMINGHAM	461,865	55·0	14139	9735	2586	2067	1305	–	326	209	56	200	57	457	368	674	1748	294	–	–	BIRMINGHAM.
LEICESTER	154,344	48·2	4789	2811	936	655	336	–	29	35	12	15	30	215	89	242	354	63	–	–	LEICESTER.
NOTTINGHAM	244,909	24·6	6196	4100	985	1113	394	–	52	34	16	48	59	185	119	224	527	62	46·8	17·66	NOTTINGHAM.
DERBY	100,871	29·2	2757	1898	433	456	276	1	122	10	19	61	17	46	51	127	248	17	–	–	DERBY.
BIRKENHEAD	105,049	27·3	3355	2102	556	462	287	–	93	16	12	43	44	79	47	125	254	23	–	–	BIRKENHEAD.
LIVERPOOL	613,463	117·7	17972	14687	3511	2359	2191	–	539	588	104	359	124	477	717	846	2415	898	47·5	25·65	LIVERPOOL.
BOLTON	115,846	48·2	3703	3036	651	635	439	–	97	58	18	110	28	128	66	141	238	59	–	–	BOLTON.
MANCHESTER	379,437	64·0	13478	11789	2524	2301	1545	–	369	287	150	161	118	460	380	950	2502	241	–	–	MANCHESTER.
SALFORD	242,509	46 9	7098	5512	1413	966	946	–	103	122	201	183	86	251	144	259	797	165	–	–	SALFORD.
OLDHAM	146,716	31·0	4023	3166	726	639	303	–	96	26	6	82	17	76	77	157	312	70	–	–	OLDHAM.
BLACKBURN	123,553	17 7	4083	2947	767	640	268	–	18	32	5	23	39	151	75	116	315	90	–	–	BLACKBURN.
PRESTON	105,163	28·3	3859	2932	929	621	458	–	80	25	15	36	30	272	68	106	215	82	–	–	PRESTON.
HUDDERSFIELD	94,253	9·0	2167	1818	365	470	114	1	4	7	5	38	24	35	46	57	178	80	–	–	HUDDERSFIELD.
HALIFAX	82,034	21·8	2327	1873	395	475	114	–	25	24	13	19	15	18	47	53	195	103	45·8	30·78	HALIFAX.
BRADFORD	240,515	22·3	6253	4984	1058	1096	556	–	225	47	8	53	32	191	108	241	529	96	47·2	25·70	BRADFORD
LEEDS	363,799	16·9	12340	8367	2126	1883	884	–	100	103	24	184	112	361	248	616	816	80	48·2	23·02	LEEDS.
SHEFFIELD	332,837	16·9	10899	8434	2124	1682	1161	–	234	272	52	164	71	368	196	277	765	411	–	–	SHEFFIELD.
HULL	213,833	27·0	6795	4183	1086	1075	400	3	17	25	20	82	39	214	121	181	513	143	46·2	23·77	HULL.
SUNDERLAND	136,506	45·0	4932	3152	851	670	345	–	21	71	12	54	49	138	106	262	296	37	–	–	SUNDERLAND.
NEWCASTLE	162,987	30·3	6596	4285	1113	872	331	–	6	26	49	82	38	130	180	348	530	93	46·2	25·65	NEWCASTLE.
CARDIFF	117,012	15·9	4600	2169	771	397	285	–	64	19	15	40	23	124	113	207	327	51	–	–	CARDIFF.

* These estimates are based on the assumption that the rates of increase which prevailed between 1871 and 1881 have since been maintained.

† For the purposes of these Tables, LONDON includes the Strand Union Workhouse at Edmonton, the Holborn Union Workhouse at Mitcham, and the Metropolitan Hospitals and Asylums situated outside Registration London. Several of the provincial towns have been similarly corrected by the addition of deaths occurring in Public Institutions situated beyond their limits.

TABLE 2.—**28 Towns.—Birth-, and Death-rates, and Analysis of Mortality, in the 53 Weeks of. 1890.**

In this Table, 0·00 indicates that the deaths were too few to give a rate of 0·005; when *no deaths* occurred, — is inserted.

CITIES AND BOROUGHS.	ANNUAL RATES PER 1000 PERSONS LIVING.													DEATHS under 1 Year to 1000 Births.	ANNUAL RATE of MORTALITY per 1000 living.		PERCENTAGE to Total Deaths.			CITIES AND BOROUGHS.
	BIRTHS in 53 Weeks ending 3rd Jan. 1891.	Total Deaths. 52 or 53 Weeks ending				Deaths from									Aged 1 to 60 Years.	Aged 60 Years and upwards.	Inquest Cases.	Deaths in Public Institutions.	Uncertified Causes of Death.	
		31st Dec. 1887.	29th Dec. 1888.	28th Dec. 1889.	3rd Jan. 1891.	Principal Zymotic Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Fever.	Diarrhœa.	Violence.						
Cols.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.	20.	Cols.
28 TOWNS	30·0	20·8	19·2	19·3	21·3	2·73	0·00	0·63	0·31	0·24	0·59	0·19	0·77	0·70	172	12·5	81·8	6·5	18·1	2·0	28 TOWNS.
LONDON*	29·1	19·6	18·5	17·4	20·3	2·73	0·00	0·73	0·19	0·32	0·73	0·15	0·61	0·69	163	11·8	77·5	7·3	24·0	0·9	LONDON.*
BRIGHTON	23·2	16·9	16·1	15·1	17·8	2·38	—	0·49	0·10	0·11	0·81	0·10	0·77	0·53	164	10·2	61·4	3·6	14·1	3·0	BRIGHTON.
PORTSMOUTH	33·6	19·5	18·8	18·1	19·6	1·83	—	0·03	0·13	0·32	0·26	0·35	0·74	0·56	135	10·5	81·2	6·6	15·9	0·7	PORTSMOUTH.
NORWICH	33·0	20·4	20·2	18·4	21·1	3·04	—	0·34	0·05	0·28	0·87	0·32	1·18	0·47	180	9·8	71·5	6·0	9·2	1·2	NORWICH.
PLYMOUTH	31·2	22·7	22·3	25·2	22·4	2·73	0·01	0·72	0·36	0·19	0·37	0·31	0·77	0·62	161	11·9	74·9	7·2	11·6	0·6	PLYMOUTH.
BRISTOL	28·1	20·4	16·9	17·6	19·2	2·04	—	0·40	0·17	0·06	0·85	0·15	0·41	0·60	151	10·6	77·1	6·2	16·1	2·4	BRISTOL.
WOLVERHAMPTON	32·3	21·7	20·7	20·6	21·8	1·85	—	0·39	0·15	0·06	0·32	0·13	0·80	0·73	175	11·8	85·7	5·9	16·8	1·2	WOLVERHAMPTON.
BIRMINGHAM	30·1	19·7	17·8	18·7	20·7	2·78	—	0·69	0·45	0·12	0·43	0·12	0·97	0·78	183	11·8	83·3	6·9	18·0	3·0	BIRMINGHAM.
LEICESTER	30·5	19·5	18·3	16·9	17·9	2·14	—	0·18	0·22	0·08	0·10	0·19	1·37	0·57	195	8·6	69·7	8·6	12·9	2·2	LEICESTER.
NOTTINGHAM	24·9	18·7	17·3	17·0	16·5	1·58	—	0·21	0·14	0·06	0·19	0·24	0·74	0·48	159	8·8	72·2	5·5	12·9	1·5	NOTTINGHAM.
DERBY	26·9	17·1	16·3	16·4	18·5	2·69	0·01	1·19	0·10	0·19	0·59	0·17	0·44	0·50	157	10·8	78·5	6·7	13·1	0·9	DERBY.
BIRKENHEAD	31·4	21·0	17·8	17·8	19·7	2·69	—	0·87	0·15	0·11	0·40	0·41	0·75	0·44	166	11·1	82·5	5·9	12·1	1·1	BIRKENHEAD.
LIVERPOOL	28·8	23·7	20·3	21·6	23·6	3·51	—	0·86	0·94	0·17	0·58	0·20	0·76	1·15	195	15·4	75·8	5·8	16·4	6·1	LIVERPOOL.
BOLTON	31·4	21·3	21·6	22·0	25·8	3·73	—	0·82	0·49	0·15	0·93	0·24	1·10	0·56	176	16·1	110·9	4·6	7·8	1·9	BOLTON.
MANCHESTER	34·9	28·7	26·1	26·7	30·6	4·01	—	0·96	0·74	0·39	0·42	0·31	1·19	0·99	187	19·6	121·9	8·1	21·2	2·0	MANCHESTER.
SALFORD	28·8	22·2	21·1	20·5	22·4	3·84	—	0·42	0·49	0·82	0·74	0·35	1·02	0·58	199	13·8	86·3	4·7	14·5	3·0	SALFORD.
OLDHAM	27·0	23·8	20·3	20·4	21·2	2·03	—	0·64	0·17	0·04	0·55	0·11	0·52	0·52	180	13·1	88·8	5·0	9·9	2·2	OLDHAM.
BLACKBURN	32·5	25·5	23·9	25·5	23·5	2·13	—	0·14	0·25	0·04	0·18	0·31	1·21	0·60	188	13·3	103·0	3·9	10·7	3·1	BLACKBURN.
PRESTON	36·1	27·9	23·9	30·0	27·4	4·28	—	0·75	0·23	0·14	0·34	0·28	2·54	0·64	241	14·2	101·6	3·6	7·3	2·8	PRESTON.
HUDDERSFIELD	22·6	23·0	18·5	18·8	19·0	1·19	0·01	0·04	0·07	0·05	0·40	0·25	0·37	0·48	168	11·2	82·1	3·1	9·8	4·4	HUDDERSFIELD.
HALIFAX	27·9	21·0	19·4	21·6	22·5	1·37	—	0·30	0·29	0·16	0·23	0·18	0·21	0·56	170	13·2	91·3	2·8	10·4	5·5	HALIFAX.
BRADFORD	25·6	19·9	17·1	19·2	20·4	2·27	—	0·92	0·19	0·03	0·22	0·13	0·78	0·44	169	12·6	86·8	4·8	10·6	1·9	BRADFORD.
LEEDS	33·4	21·1	20·6	22·1	22·6	2·39	—	0·27	0·28	0·06	0·50	0·30	0·98	0·67	172	12·9	95·2	7·4	9·8	1·0	LEEDS.
SHEFFIELD	32·2	21·6	20·5	20·9	24·9	3·43	—	0·69	0·80	0·15	0·48	0·21	1·10	0·58	195	14·9	101·7	3·3	9·1	4·9	SHEFFIELD.
HULL	31·3	19·2	16·4	20·3	19·2	1·84	0·01	0·08	0·12	0·09	0·38	0·18	0·98	0·56	160	10·2	79·9	4·3	12·3	3·4	HULL.
SUNDERLAND	35·5	19·7	18·1	22·9	22·7	2·49	—	0·15	0·51	0·09	0·39	0·35	1·00	0·76	173	12·8	84·3	8·3	9·4	1·2	SUNDERLAND.
NEWCASTLE	39·8	25·3	20·6	25·2	25·9	2·00	—	0·04	0·16	0·30	0·49	0·23	0·78	1·09	169	15·2	94·7	8·1	12·4	2·2	NEWCASTLE.
CARDIFF	38·7	21·9	20·5	19·5	20·8	2·40	—	0·54	0·16	0·13	0·34	0·19	1·04	0·95	168	11·8	74·3	8·4	13·2	2·1	CARDIFF.

* See note (†) to Table 1.

TABLE 3.—**28 Towns.—Death-rates** from **All Causes,** and from the **Principal Zymotic Diseases,** and **Infant Mortality,** in the Ten Years **1880-89,** and in **1890.**

In this Table 0·00 indicates that the deaths were too few to give a rate of 0·005; when *no deaths* occurred, – is inserted.

Towns.	All Causes.		Small-pox.		Measles.		Scarlet Fever.		Diphtheria.		Whooping-cough.		Fever.		Diarrhœa.		Deaths under One Year to 1000 Births.		Towns.
	Ten years 1880–89.	1890.	Ten years 1880–89.	1890.	Ten years 1880–89.	1890.	Ten years 1880–89.	1890.	Ten years 1880–89.	1890.	Ten years 1880–89.	1890.	Ten years 1880–89.	1890.	Ten years 1880–89.	1890.	Ten years 1880–89.	1890.	
28 Towns† -	20·8	21·3	0·08	0·00	0·62	0·63	0·38	0·31	0·18	0·24	0·60	0·59	0·26	0·19	0·89	0·77	162	172	**28** Towns.†
London* - -	20·0	20·3	0·16	0·00	0·58	0·73	0·39	0·19	0·23	0·32	0·69	0·73	0·22	0·15	0·76	0·61	151	163	London.*
Brighton - -	18·0	17·8	0·01	–	0·37	0·49	0·32	0·10	0·12	0·11	0·45	0·81	0·19	0·10	0·69	0·77	145	164	Brighton.
Portsmouth -	19·9	19·6	0·01	–	0·50	0·03	0·13	0·13	0·46	0·32	0·40	0·26	0·56	0·35	0·91	0·74	140	135	Portsmouth.
Norwich - -	20·8	21·1	0·00	–	0·39	0·34	0·39	0·05	0·12	0·28	0·40	0·87	0·32	0·32	1·12	1·18	169	180	Norwich.
Plymouth - -	22·4	22·4	0·00	0·01	0·85	0·72	0·43	0·36	0·18	0·19	0·53	0·37	0·29	0·31	0·65	0·77	161	161	Plymouth.
Bristol - -	19·0	19·2	0·03	–	0·46	0·40	0·44	0·17	0·09	0·06	0·46	0·85	0·18	0·15	0·54	0·41	141	151	Bristol.
Wolverhampton	21·5	21·8	0·02	–	0·49	0·39	0·35	0·15	0·08	0·06	0·48	0·32	0·17	0·13	1·10	0·80	164	175	Wolverhampton.
Birmingham -	20·0	20·7	0·05	–	0·45	0·69	0·31	0·45	0·13	0·12	0·62	0·43	0·16	0·12	1·22	0·97	166	183	Birmingham.
Leicester - -	20·3	17·9	–	–	0·46	0·18	0·46	0·22	0·09	0·08	0·41	0·10	0·22	0·19	1·75	1·37	205	195	Leicester.
Nottingham -	20·7	16·5	0·04	–	0·55	0·21	0·51	0·14	0·10	0·06	0·50	0·19	0·32	0·24	1·11	0·74	176	159	Nottingham.
Derby† - - -	17·7	18·5	0·01	0·01	0·34	1·19	0·23	0·10	0·05	0·19	0·36	0·59	0·28	0·17	0·61	0·44	143	157	Derby.†
Birkenhead -	19·2	19·7	0·02	–	0·48	0·87	0·40	0·15	0·09	0·11	0·52	0·40	0·30	0·41	0·67	0·75	145	166	Birkenhead.
Liverpool - -	24·5	23·6	0·04	–	0·90	0·86	0·56	0·94	0·13	0·17	0·72	0·58	0·50	0·20	1·11	0·76	183	195	Liverpool.
Bolton† - -	22·2	25·8	0·03	–	0·85	0·82	0·25	0·49	0·09	0·15	0·57	0·93	0·27	0·24	1·31	1·10	175	176	Bolton.†
Manchester -	26·7	30·6	0·03	–	0·83	0·96	0·51	0·74	0·15	0·39	0·70	0·42	0·28	0·31	1·11	1·19	178	187	Manchester.
Salford - -	22·6	22·4	0·01	–	0·73	0·42	0·67	0·49	0·18	0·82	0·69	0·74	0·41	0·35	1·47	1·02	183	199	Salford.
Oldham - -	22·8	21·2	0·02	–	0·68	0·64	0·49	0·17	0·14	0·04	0·54	0·55	0·21	0·11	0·70	0·52	171	180	Oldham.
Blackburn† -	24·5	23·5	0·02	–	1·02	0·14	0·71	0·25	0·01	0·04	0·55	0·18	0·44	0·31	1·17	1·21	191	188	Blackburn.†
Preston† - -	27·3	27·4	0·07	–	0·86	0·75	0·45	0·23	0·16	0·14	0·70	0·34	0·52	0·28	2·26	2·54	220	241	Preston.†
Huddersfield† -	20·4	19·0	0·00	0·01	0·63	0·04	0·23	0·07	0·12	0·05	0·46	0·40	0·14	0·25	0·43	0·37	169	168	Huddersfield.†
Halifax† - -	21·0	22·5	0·00	–	0·41	0·30	0·26	0·29	0·09	0·16	0·23	0·23	0·24	0·18	0·36	0·21	160	170	Halifax.†
Bradford - -	19·5	20·4	0·01	–	0·44	0·92	0·38	0·19	0·05	0·03	0·47	0·22	0·20	0·13	0·87	0·78	166	169	Bradford.
Leeds - - -	22·0	22·6	0·02	–	0·46	0·27	0·69	0·28	0·08	0·06	0·50	0·50	0·34	0·30	1·24	0·98	173	172	Leeds.
Sheffield - -	21·5	24·9	0·23	–	0·45	0·69	0·76	0·80	0·07	0·15	0·55	0·48	0·29	0·21	1·16	1·10	168	195	Sheffield.
Hull - - -	20·6	19·2	0·04	0·01	0·46	0·08	0·83	0·12	0·07	0·09	0·50	0·38	0·29	0·18	1·22	0·98	162	160	Hull.
Sunderland -	22·4	22·7	0·13	–	0·81	0·15	0·76	0·51	0·10	0·09	0·48	0·39	0·35	0·35	1·06	1·00	158	173	Sunderland.
Newcastle - -	23·6	25·9	0·10	–	0·65	0·04	0·50	0·16	0·12	0·30	0·57	0·49	0·34	0·23	0·89	0·78	163	169	Newcastle.
Cardiff† - -	21·9	20·8	0·03	–	0·71	0·54	0·45	0·16	0·22	0·13	0·57	0·34	0·36	0·19	0·95	1·04	165	168	Cardiff.†

* *See* note (†) to Table 1.

† The rates for years prior to 1882 cannot be ascertained for these towns or for the aggregate of the 28 towns; the mean rates for the 8 years 1882-89 have therefore been inserted in the columns for decennial rates.

TABLE 4.—28 Towns.—Mean Temperature at Greenwich, and Annual Rate of Mortality in each Town, in each Week of 1890.

Number of Week.	Week ending	Mean Temperature at Greenwich. Fahrenheit.	Mean Temperature at Greenwich. Centigrade.	Annual Rate of Mortality per 1000 in Twenty-eight Towns.	London.*	Brighton.	Portsmouth.	Norwich.	Plymouth.	Bristol.	Wolverhampton.	Birmingham.	Leicester.	Nottingham.	Derby.	Birkenhead.	Liverpool.	Bolton.	Manchester.	Salford.	Oldham.	Blackburn.	Preston.	Huddersfield.	Halifax.	Bradford.	Leeds.	Sheffield.	Hull.	Sunderland.	Newcastle.	Cardiff.
		°	°																													
	YEAR (53 weeks)	48·6	9·22	21·3	20·3	17·8	19·6	21·1	22·4	19·2	21·8	20·7	17·9	16·5	18·5	19·7	23·6	25·8	30·6	22·4	21·2	23·5	27·4	19·0	22·5	20·4	22·6	24·9	19·2	22·7	25·9	20·8
	March Qr (13 weeks)	41·4	5·22	24·7	23·6	20·2	23·6	23·1	25·9	27·0	27·4	25·1	19·7	19·4	20·7	19·1	26·4	28·8	33·9	24·2	24·5	28·5	29·6	22·4	25·3	25·3	27·8	28·4	23·5	24·0	27·1	21·0
	June „ (13 weeks)	52·8	11 56	19·0	17·3	15·5	16·6	19·2	19·6	15·8	18·6	18·2	14·9	14·5	21·6	16·4	21·5	26·9	29·8	21·3	19·8	21·0	21·2	16·5	22·0	19·4	21·1	24·8	17·8	21·9	26·3	17·0
	Sept. „ (13 weeks)	59·4	15·22	19·2	18·2	16·7	17·5	18·6	20·7	14·2	19·8	19·4	18·7	14·1	15·4	18·8	22·2	21·5	27·2	20·9	16·8	18·8	27·0	17·1	17·2	16·5	19·8	22·3	17·9	21·7	25·7	20·9
	Dec. „ (14 weeks)	40·8	4·89	22·1	21·3	18·6	20·6	23·2	23·4	19·9	21·6	20·3	18·4	17·8	16·5	24·1	24·1	25·9	31·4	23·1	23·6	25·3	31·7	19·8	25·2	20·4	21·8	24·3	17·9	23·2	24·5	23·8
1	Jan. 4	32·8	0·44	26·2	28·0	18·1	28·5	19·7	26·5	26·3	28·1	23·5	14·5	17·7	22·2	16·4	27·5	31·1	32·8	22·6	19·9	31·7	32·2	16·6	22·2	25·4	27·1	24·4	24·6	21·8	25·0	24·1
2	„ 11	47·6	8·67	28·1	32·4	18·1	20·4	19·7	30·4	23·8	19·4	24·5	21·3	19·4	27·4	17·4	24·7	21·2	33·8	19·8	24·2	21·9	23·8	23·8	19·1	24·1	29·0	26·6	24·6	26·4	28·5	23·2
3	„ 18	45·5	7·50	27·0	32·1	15·6	22·6	20·2	21·2	25·8	21·9	27·4	17·2	14·9	17·6	17·9	25·2	24·8	28·4	20·9	14·9	24·9	25·8	18·8	21·0	20·2	26·1	23·5	21·5	20·3	27·2	18·3
4	„ 25	42·7	5·94	24·2	26·3	20·2	25·5	15·9	20·5	27·2	25·6	22·9	20·3	16·8	15·0	17·9	22·9	23·9	26·9	18·9	23·5	21·5	27·8	17·7	24·8	19·5	27·1	21·0	27·1	18·3	22·1	21·4
5	Feb. 1	42·9	6·06	22·8	21·8	24·5	20·1	21·9	28·5	26·7	23·1	26·5	19·9	14·5	17·1	18·4	22·8	20·7	29·3	21·3	21·7	27·0	24·3	23·8	19·1	22·8	24·7	26·2	23·7	28·6	25·9	19·2
6	„ 8	37·1	2·83	23·0	20·6	22·8	29·9	30·6	25·8	34·8	25·6	26·1	16·6	19·4	18·6	19·4	27·2	20·7	30·4	23·0	24·9	23·2	26·8	19·9	22·2	23·2	25·5	23·2	20·5	25·6	29·1	22·7
7	„ 15	35·9	2·17	25·3	21·3	22·8	23·0	24·1	34·4	37·5	33·1	30·6	24·7	24·1	21·7	23·8	31·0	33·8	38·6	26·0	30·9	23·2	27·8	26·0	26·7	22·3	30·1	27·3	25·1	27·5	28·2	24·5
8	„ 22	39·4	4·11	25·1	21·8	14·8	24·1	26·8	23·8	25·6	33·8	27·0	23·3	25·1	18·6	19·9	30·2	30·6	35·3	28·0	33·4	30·4	37·7	24·9	29·2	30·6	29·4	32·0	23·9	26·0	25·9	18·7
9	March 1	35·4	1·89	25·6	21·3	18·1	22·3	29·0	23·8	27·2	35·6	23·1	17·9	21·3	24·8	22·3	29·5	43·7	40·8	28·8	30·9	36·3	43·1	26·6	29·9	34·9	36·5	35·1	21·5	26·4	28·5	16·5
10	„ 8	36·4	2·44	26·6	22·3	20·7	22·6	25·2	31·1	26·5	39·4	27·8	22·6	21·9	22·2	22·8	30·2	40·1	45·6	33·1	26·3	38·8	38·7	28·2	35·0	32·7	29·5	38·7	22·7	24·4	29·4	19·2
11	„ 15	45·3	7·39	23·6	20·9	20·7	21·2	24·1	27·1	26·0	21·9	23·8	20·3	19·4	24·8	14·4	26·0	37·8	35·9	22·4	19·2	35·9	27·8	20·5	29·9	24·1	27·4	33·4	22·2	26·4	29·4	20·9
12	„ 22	43·3	6·28	21·7	19·3	17·7	25·9	16·4	21·2	24·2	28·8	21·0	14·5	19·6	17·1	18·4	23·2	26·6	30·5	22·8	27·4	28·3	25·8	24·3	26·1	24·1	26·2	28·0	25·1	18·3	24·3	23·6
13	„ 29	49·0	9·44	21·4	18·5	28·7	20·8	26·2	21·8	19·1	19·4	22·4	22·6	17·9	21·7	19·4	22·3	19·4	31·9	26·7	21·3	27·9	23·3	20·5	23·5	24·9	22·6	29·8	23·7	21·8	28·8	20·9

14	April	5	43·8	6·56	19·3	16·7	16·4	16·8	19·7	27·1	18·0	25·0	20·9	15·5	14·1	20·2	12·9	24·1	23·9	28·6	18·1	22·7	24·1	22·3	10·5	19·1	20·6	24·2	23·3	19·3	24·4	27·8	22·7
15	„	12	43·2	6·22	20·6	19·1	18·1	15·3	21·9	23·8	16·8	23·1	18·2	15·9	18·3	24·8	10·9	21·4	28·8	31·5	22·4	22·7	28·3	18·3	20·5	30·5	22·5	23·4	23·7	21·5	19·9	24·0	15·6
16	„	19	46·1	7·83	20·9	19·0	19·8	17·1	20·8	17·9	17·1	16·3	20·8	10·8	14·7	26·4	16·4	23·8	34·7	30·0	20·4	25·6	16·0	21·3	18·8	28·0	22·5	25·8	31·6	20·2	20·6	23·8	16·0
17	„	26	47·1	8·39	20·7	18·5	16·0	20·8	19·1	20·5	20·0	20·0	16·5	17·9	19·4	24·8	17·9	21·9	23·9	30·4	27·1	18·8	25·3	25·3	17·1	24·8	22·3	22·8	29·1	18·0	22·9	30·7	24·5
18	May	3	50·7	10·39	20·6	18·1	15·6	15·7	24·6	21·8	20·9	20·6	16·1	16·6	13·6	27·9	19·4	23·6	36·0	33·1	25·8	21·3	21·9	24·8	21·6	15·9	22·8	21·5	29·6	21·0	27·1	25·3	17·8
19	„	10	52·4	11·33	19·3	17·3	15·2	16·0	17·5	20·5	14·4	13·8	20·0	12·5	16·6	27·4	15·4	20·2	32·4	31·3	22·8	21·0	17·3	20·3	10·5	25·4	20·4	22·8	26·2	17·6	21·4	32·3	16·0
20	„	17	55·3	12·94	19·9	17·3	13·1	16·0	20·2	17·2	19·1	16·9	19·9	16·9	15·5	24·3	11·9	23·5	32·4	35·0	20·9	18·5	22·8	22·3	16·0	17·8	22·5	23·5	26·8	17·6	28·6	25·9	19·2
21	„	24	58·3	14·61	18·6	17·1	15·6	14·6	19·1	15·9	14·6	15·0	17·2	18·6	15·8	24·8	21·8	19·9	23·4	28·0	20·2	17·4	21·5	18·3	9·4	24·2	18·4	20·2	22·1	18·8	26·7	29·4	20·1
22	„	31	54·0	12·22	17·8	16·6	17·3	16·4	15·3	15·2	15·5	16·3	15·5	14·5	11·7	16·5	17·4	19·8	22·1	28·7	18·7	17·1	19·4	23·8	19·4	23·5	16·3	17·9	21·5	17·8	19·5	25·9	13·4
23	June	7	56·5	13·61	18·0	16·4	17·7	16·0	17·5	13·9	11·0	13·1	16·6	11·5	15·8	20·2	19·4	19·5	29·3	28·0	22·1	18·5	18·1	22·3	17·1	21·0	18·0	20·8	23·7	14·6	17·2	27·2	18·3
24	„	14	56·6	13·67	17·2	16·2	10·5	19·3	14·2	23·8	11·5	22·5	17·2	13·2	9·6	14·0	17·9	20·7	20·7	26·2	18·5	17·8	17·7	16·9	14·9	20·3	17·1	17·9	21·0	15·1	19·5	21·1	12·9
25	„	21	59·3	15·17	17·9	16·4	11·8	18·6	20·2	22·5	13·7	16·3	18·6	14·9	12·6	15·5	14·9	21·9	23·9	29·0	19·4	19·2	18·1	16·9	18·8	19·1	18·4	14·9	24·4	15·9	20·2	25·6	14·3
26	„	28	60·6	15·89	16·9	15·9	14·8	12·4	19·1	14·6	13·2	17·5	19·1	14·5	11·3	14·5	17·4	18·6	18·9	27·1	20·4	16·7	22·8	22·3	19·9	15·9	10·6	19·2	19·6	14·6	17·2	23·7	10·7
27	July	5	55·7	13·17	17·4	17·5	6·7	12·8	12·6	17·2	11·9	13·8	16·9	16·6	14·1	14·5	18·4	16·7	25·2	25·3	17·8	16·3	14·3	21·3	14·4	18·4	20·2	20·4	16·1	14·6	17·6	18·9	21·8
28	„	12	55·7	13·17	17·7	17·4	16·4	13·1	10·4	21·8	11·0	12·5	19·2	19·9	12·8	17·6	18·4	22·8	24·3	23·1	20·0	19·9	18·1	18·8	14·4	15·3	13·9	18·1	16·9	11·7	19·9	25·3	13·8
29	„	19	61·4	16·33	18·0	17·9	15·2	10·9	14·2	21·2	18·0	16·3	16·9	19·6	15·5	11·9	15·4	19·4	18·9	26·2	14·4	12·1	16·9	20·8	16·0	19·1	14·7	21·6	21·5	12·4	18·0	21·8	17·8
30	„	26	61·6	16·44	17·6	16·7	15·6	11·7	18·0	15·9	16·6	18·1	16·9	16·6	16·2	11·9	18·4	21·0	20·3	24·5	23·2	13·1	13·1	18·3	17·7	14·6	17·8	17·3	19·3	14·4	19·9	24·6	18·7
31	August	2	62·9	17·17	19·6	19·8	12·2	19·3	18·6	22·5	14·4	19·4	19·4	18·2	13·6	15·5	15·9	21·0	20·7	26·1	24·3	16·3	18·6	21·3	15·5	16·5	17·8	20·2	22·4	16·3	19·9	25·3	9·8
32	„	9	62·6	17·00	19·2	18·8	19·4	16·0	19·7	25·8	15·0	20·6	20·1	19·3	14·5	16·0	23·8	21·6	17·6	25·8	17·8	15·3	14·3	28·3	14·4	15·9	17·6	19·5	24·4	14·4	17·6	23·4	16·5
33	„	16	61·1	16·17	21·0	20·6	21·5	21·2	20·8	17·2	13·7	23·8	21·0	17·9	11·9	14·5	21·8	23·0	18·9	27·6	18·7	12·8	19·8	43·6	19·4	15·9	14·3	21·6	25·2	19·5	22·5	33·9	26·3
34	„	23	59·0	15·00	21·0	19·2	21·9	19·3	24·6	18·5	13·0	20·6	24·6	17·9	15·3	23·3	14·4	25·2	24·8	26·8	27·5	16·3	21·1	31·7	22·7	15·3	16·9	20·4	27·6	22·7	24·4	29·4	20·9
35	„	30	54·4	12·44	20·7	19·6	19·8	20·1	20·8	17·2	11·2	18·1	21·7	20·9	12·6	16·0	19·9	25·5	22·5	27·6	23·7	16·3	15·2	29·7	17·1	13·3	18·6	18·3	28·2	20·7	22·5	35·2	29·4
36	Sept.	6	58·4	14·67	19·0	17·9	14·8	24·1	22·4	15·9	14·1	28·1	17·6	20·3	13·6	15·5	18·4	22·2	22·1	30·4	22·4	14·6	20·3	25·3	12·7	19·1	14·1	18·5	18·3	21·9	24·8	22·1	22·7
37	„	13	59·4	15·22	18·6	16·6	19·4	19·3	17·0	27·8	15·9	21·3	21·2	20·9	13·4	19·6	19·9	22·8	20·3	25·4	19·6	22·4	15·6	23·3	22·7	17·2	13·2	17·5	23·5	19·0	21·8	21·8	19·6
38	„	20	60·4	15·78	19·1	16·2	16·0	18·2	15·3	19·9	14·1	20·0	19·0	17·9	15·8	12·9	17·9	22·1	20·7	31·6	20·9	19·9	30·0	35·7	17·1	17·8	14·1	21·9	25·2	23·7	27·9	26·6	24·1
39	„	27	58·8	14·89	20·0	17·2	17·7	21·9	27·9	28·5	15·0	24·4	17·2	16·6	14·3	11·4	21·8	25·8	23·9	32·6	21·3	22·7	27·4	32·2	17·7	25·4	20·8	21·9	20·8	20·7	25·2	25·6	30·7
40	October	4	56·7	13·72	19·3	16·7	18·6	16·4	28·4	33·1	14·1	22·5	16·7	15·5	18·7	10·3	22·3	22·0	16·7	30·6	20·0	16·3	25·3	34·2	18·8	17·2	22·1	18·9	23·6	18·8	23·0	31·4	20·1
41	„	11	54·3	12·39	19·8	17·4	16·9	18·2	20·8	24·5	14·6	21·9	20·3	19·6	17·7	12·4	25·3	21·7	22·5	29·0	22·8	17·8	32·9	24·3	19·4	23·5	25·6	22·9	21·1	17·8	22·9	25·9	25·4
42	„	18	47·7	8·72	20·8	20·5	17·3	15·7	20·2	13·9	20·0	23·1	16·7	19·9	12·3	19·1	23·3	22·0	24·3	28·0	21·5	22·4	26·6	25·8	18·3	21·0	22·5	19·1	24·9	18·0	25·2	22·7	20·1
43	„	25	48·2	9·00	20·6	19·5	14·8	18·6	18·6	21·8	15·3	15·6	19·9	15·2	15·5	22·7	28·3	20·6	23·0	29·4	21·5	19·9	25·7	26·3	12·7	22·2	21·8	19·1	25·2	23·4	27·5	25·9	29·9
44	Nov.	1	43·6	6·44	22·1	21·4	22·3	24·8	24·6	25·8	15·3	20·0	18·6	19·9	16·4	14·5	24·3	23·7	26·6	31·6	24·1	29·1	27·9	31·7	19·4	29·2	19·3	20·9	24·1	17·4	17·6	24·0	25·8
45	„	8	45·2	7·33	20·8	20·4	12·7	19·3	24·1	18·5	18·0	21·3	20·2	15·9	14·7	16·0	25·3	24·1	28·8	29·3	18·5	22·7	22·8	22·8	18·3	18·4	21·9	20·8	20·7	17·8	18·7	22·7	25·0
46	„	15	44·5	6·94	21·1	20·2	16·9	20·8	20·8	22·5	18·6	19·4	19·4	20·9	15·3	15·0	21·3	21·8	26·1	31·1	23·7	30·6	18·1	24·8	17·1	21·6	21·9	22·9	22·2	18·5	21·8	25·9	20·9
47	„	22	50·0	10·00	21·3	20·2	15·2	24·1	21·3	18·5	19·5	20·0	18·3	15·9	19·6	15·5	17·4	21·1	25·7	33·4	24·9	27·4	27·9	17·4	18·3	30·5	18·0	23·4	25·1	18·5	24·1	21·4	25·0
48	„	29	34·3	1·28	19·0	18·0	19·0	20·4	17·0	24·5	16·2	20·6	18·4	19·9	16·6	15·0	18·4	18·7	21·6	30·2	15·5	22·4	21·1	26·8	21·6	21·6	16·5	19·2	19·4	18·8	16·8	21·8	19·2
49	Dec	6	35·3	1·83	21·5	20·4	16·0	19·7	23·5	20·5	21·1	18·8	21·0	19·9	16·2	17·1	26·8	24·7	27·9	28·2	22·8	25·6	20·3	36·2	21·0	29·9	16·7	21·6	23·7	12·7	26·4	24·3	22·3
50	„	13	30·6	−0·78	21·3	21·1	25·7	21·2	23·5	23·2	22·5	20·6	18·5	16·2	18·5	16·5	23·8	21·9	26·1	27·2	18·9	19·5	20·3	33·2	17·7	26·7	19·7	20·8	27·4	15·6	23·3	18·9	12·9
51	„	20	26·9	−2·83	25·1	26·0	22·3	20·4	26·8	28·5	21·6	21·9	21·8	15·2	20·0	16·0	27·8	26·9	27·0	31·9	25·2	26·3	25·7	51·6	26·0	26·7	18·6	22·9	25·2	16·1	19·9	25·6	29·4
52	„	27	28·1	−2·17	27·8	26·3	15·2	25·5	27·3	21·8	30·8	34·4	22·7	27·7	28·4	20·7	24·3	34·9	34·7	43·6	30·3	25·9	27·0	44·6	26·6	41·3	24·5	28·8	29·6	16·6	32·9	24·3	26·3
53	Jan.	3	28·6	−1·89	28·7	29·7	27·0	23·3	27·9	30·4	30·5	22·5	31·7	16·2	20·7	19·6	28·8	33·5	31·5	35·7	33·1	24·5	32·9	43·6	22·7	22·9	17·1	24·5	25·2	20·2	22·2	28·5	31·2

* *See* note (†) to Table 1.

TABLE 5.—**Births** and **Deaths** in 1890 in **Edinburgh, Glasgow,** and **Dublin,** and in certain **Colonial** and **Foreign Cities.**

CITIES.	POPULATION (enumerated or estimated).	BIRTHS. (Excluding Stillborn.)	DEATHS. (Excluding Stillborn.)	ANNUAL RATE per 1000 Persons living.		DEATHS FROM SOME ZYMOTIC DISEASES.						
				Births.	Deaths.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Fever.	Diarrhœal Diseases.
EDINBURGH	271,135	7267	5524	26·4	20·0	–	250	50	89	255	52	130
GLASGOW	530,208	19548	13626	36·3	25·3	–	641	125	146	709	138	334
DUBLIN	353,082	9629	9454	26·9	26·4	–	106	8	24	187	219	184
CALCUTTA	433,219	–	12561	–	28·5	700	46	–	18	26	4208	2320†
BOMBAY	773,196	15446	20474	20·0	26·6	153	177	?	?	?	6510	1502†
MADRAS	398,777	17786	17406	43·9	42·9	74	405	?	?	?	4750	3494†
PARIS	2,260,945	59167	56232	25·7	24·5	80	1504	224	1700*	511	684	3788
BRUSSELS (with Faubourgs).	477,288	13093	10425	27·0	21·5	70	147	10	20	96	126	1053
AMSTERDAM	406,302	14272	9336	34·6	22·6	1	214	11	196	140	79	16
ROTTERDAM	203,486	7414	4636	35·8	22·4	–	17	1	18	74	12	34
THE HAGUE	156,497	5366	3426	33·7	21·5	–	122	–	9	22	4	7
COPENHAGEN	312,387	10624	6847	33·5	21·6	1	208	131	408	153	27	434
STOCKHOLM	236,350	7570	4712	31·5	19·6	–	80	336	193*	96	43	526
CHRISTIANIA	143,300	2857	3067	19·6	21·1	1	77	78	242	28	17	284
ST. PETERSBURG (with Faubourgs).	842,000	–	24285	–	28·4	233	773	1048	449	127	481	2672
MOSCOW	753,469	–	30393	–	40·3	13	440	569	693	150	551	8031
BERLIN	1,548,279	47868	34005	30·4	21·6	5	451	301	1513	594	147	4660
HAMBURG (State)	591,647	22283	13473	37·1	22·4	–	208	99	387*	153	164	1289
DRESDEN	269,250	8526	6002	31·2	21·9	2	89	46	253*	77	25	499
BRESLAU	324,400	11982	9306	36·3	28·2	1	14	187	374*	91	50	1200
MUNICH	298,000	–	9087	–	30·0	1	146	66	344*	83	25	1659
VIENNA	822,176	27290	20568	32·7	24·6	51	470	95	371	80	75	1603
PRAGUE	314,425	–	9005	–	28·2	37	254	150	223	105	104	242
BUDA-PESTH	463,017	17339	14759	36·8	31·4	–	75	244	715	34	157	1538
TRIESTE	160,092	–	4643	–	28·5	2	22	5	121*	30	20	300
ROME	417,392	12249	9915	28·9	23·4	6	174	11	238	49	452‡	792
TURIN	314,827	8476	7337	26·9	23·3	39	108	7	88	41	145	811
VENICE	156,800	4256	4664	26·7	29·3	525	72	2	93	7	69	454
CAIRO	374,838	19232	17051	50·5	44·8	11	9	–	98*	138	975	5378
ALEXANDRIA	231,396	10356	9304	44·0	39·6	66	4	2	118*	24	482	2337
NEW YORK	1,617,997	–	41015	–	24·9	2	740	417	1287	496	355	3357
BROOKLYN	871,852	–	20211	–	22·8	–	111	231	927	244	185	1673
PHILADELPHIA	1,064,277	–	22157	–	20·5	–	102	190	543	207	675	1242
BALTIMORE	455,427	–	10198	–	22·4	–	248	42	274	160	247	1092
BOSTON	448,477	–	10181	–	22·7	–	19	42	401	39	155	665
ST. LOUIS	450,000	–	8409	–	18·7	–	1	87	186	31	140	539
NEW ORLEANS	254,000	–	7369	–	28·5	–	37	5	84	26	143	541

* Including deaths from croup.

† Including 1003 deaths from cholera in Calcutta, 96 in Bombay, and 742 in Madras.

‡ Including 304 deaths from malarial fever.

TABLE 6.—LONDON.* **Numbers** of **Natives** and **Immigrants** respectively, **living** in LONDON, in 1871 and in 1881.

—	MALES.		FEMALES.		EXCESS OF FEMALES.	
	1871.	1881.	1871.	1881.	1871.	1881.
TOTAL INHABITANTS - - -	1,523,151	1,797,486	1,731,109	2,018,997	207,958	221,511
BORN IN LONDON - - -	975,461	1,147,063	1,080,115	1,254,892	104,654	107,829
BORN OUT OF LONDON - - -	547,690	650,423	650,994	764,105	103,304	113,682

* This Table and Table 10 refer to London as constituted in 1881. The numbers therefore differ from those in other Tables in the Annual Summary, from which the hamlet of Mottingham is excluded; this hamlet was transferred from Registration London to the Outer Ring in 1887.

TABLE 7.—GREATER LONDON.—**Area, Population, Inhabited Houses,** and **Rateable Value.**

—	AREA (including Tidal Water).		ENUMERATED POPULATION, 1881.	DENSITY OF POPULATION in 1881.		INHABITED HOUSES, 1881.	RATEABLE VALUE,*	
	In Acres.	In Square Miles.		Persons to an Acre.	Persons to a Square Mile.		1881.	1890.
GREATER LONDON -	448,334	701	4,766,661	10·6	6,800	645,695	£ 32,854,916	£ 39,195,285
INNER LONDON -	77,410	121	3,815,704	49·3	31,535	486,056	27,402,509	31,438,122
OUTER RING - -	370,924	580	950,957	2·6	1,640	159,639	5,452,407	7,757,163

* Supplied from the London County Council and Metropolitan Police Offices.

TABLE 8.—GREATER LONDON (THE METROPOLITAN AND CITY POLICE DISTRICTS).—**Population;** and **Births** and **Deaths** in the 53 Weeks of 1890.

—	POPULATION, estimated to the middle of 1890.	ANNUAL RATE per 1000 living.			TOTAL BIRTHS.	TOTAL DEATHS.	The DEATHS registered in the 53 Weeks include									
							Deaths of		Deaths from							
		Births.	Deaths.	Principal Zymotic Diseases.			Infants under 1 Year of Age.	Persons aged 60 Years and upwards.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Fever.	Diarrhœa.	Deaths in Public Institutions.
GREATER LONDON -	5,758,500	29·5	19·4	2·67	172,659	113,607	27,100	27,441	4	4250	1032	1820	4078	865	3556	23642
REGISTRATION LONDON* -	4,421,661	29·1	20·3	2·73	130,690	91,243	21,252	21,885	4	3291	876	1417	3276	662	2753	21881
OUTER RING -	1,336,839	30·9	16·5	2·45	41,969	22,364	5848	5556	–	959	156	403	802	203	803	1761

* See note (†) to Table 1.

Table 9.—London.—Mortality in Five Groups of Districts, and Meteorology at Greenwich, 1841–1890.

	London.	Groups of Districts.					Meteorology at Greenwich.			
		West.	North.	Central	East.	South.	Mean Temperature of Air.	Degree of Humidity. Saturation = 100.	Rainfall, in Inches.	Mean Hourly Horizontal Movement of the Air.*
Area in Square Miles	121·0	16·8	21·0	3·5	9·3	70·4				
Decennial Increase of Population per Cent., 1871–81	17·3	19·3	20·5	−15·6 (decrease).	8·4	30·8				
Enumerated Population, 1881	3,815,704	669,633	905,947	282,238	692,738	1,265,148				
Density: Persons to an Acre — 1841	25	27	28	172	66	11				
1871	42	52	56	150	107	21				
1881	49	62	67	127	116	28				
Years.	Mean Rate of Mortality per 1000 in 50 Years.						Means in 50 Years, 1841-90.			
1841-1890	23·1	21·6	21·7	25·2	25·2	22·9	° 49·2	° 81	ins. 24·5	miles. 11·0 (41 yrs.)
	Means in Periods of Ten Years.						Means in Periods of Ten Years			
1841-50	24·8	23·0	22·7	24·7	26·2	26·2	° 49·4	° 82	ins. 24·5	miles. —
1851-60	23·7	22·6	22·2	24·4	25·1	24·4	49·0	81	24·4	10·0
1861-70	24·4	22·7	23·6	26·5	26·9	23·4	49·6	81	24·0	10·8
1871-80	22·5	20·8	21·9	24·9	25·0	21·9	49·2	81	26·5	11·6
1881-90	19·9	19·0	18·3	25·2	23·1	18·9	48·9	81	23·1	11·8
	Annual Rate of Mortality per 1000.						Meteorology in each Year.			
1841	24·1	22·4	22·4	25·0	25·1	24·4	° 48·7	° 83	ins. 33·3	miles. —
1842	23·6	22·6	22·6	23·6	24·4	23·9	49·6	84	22·6	—
1843	24·8	23·3	23·1	25·3	26·4	24·8	49·4	87	24·6	—
1844	25·1	23·9	23·3	24·4	25·9	25·6	48·6	83	24·9	—
1845	23·3	22·5	21·0	24·0	24·6	23·8	47·6	85	22·4	—
1846	23·4	21·6	21·9	22·9	24·1	24·6	51·3	83	25·3	—
1847	26·8	24·5	25·4	27·9	29·4	27·7	49·5	81	17·8	—
1848	25·7	23·6	23·4	25·3	28·7	27·2	50·4	79	30·2	—
1849	30·1	29·1	25·7	27·9	31·8	37·6	50·0	78	25·9	—
1850	21·0	19·6	19·8	21·1	21·7	21·9	49·3	79	19·7	11·0
1851	23·4	22·0	22·2	24·1	24·3	24·0	49·2	78	21·6	10·3
1852	22·5	21·5	21·2	23·9	23·3	23·0	50·6	76	34·2	10·6
1853	24·4	22·3	22·4	25·1	26·5	25·3	47·7	79	29·0	9·5
1854	29·4	28·5	24·4	27·4	30·0	34·8	48·9	83	18·7	10·3
1855	24·3	23·0	23·3	25·1	25·5	24·6	47·1	83	21·1	9·9
1856	22·0	21·5	21·1	23·0	23·3	21·8	49·0	83	22·2	10·6
1857	22·4	21·2	21·5	23·8	24·6	21·5	51·0	83	21·4	9·3
1858	23·9	22·4	22·9	24·5	25·8	24·0	49·2	79	17·8	9·7
1859	22·7	21·4	21·7	24·1	24·0	22·6	50·7	80	25·9	9·5
1860	22·4	22·2	21·2	23·3	24·1	22·1	47·0	84	32·0	10·0
1861	23·2	22·1	22·3	25·4	24·0	22·8	49·4	84	20·8	9·9
1862	23·6	22·0	22·0	26·2	26·0	22·7	49·5	84	26·2	10·0
1863	24·5	22·9	23·8	26·9	26·5	23·3	50·3	80	20·0	10·3
1864	26·4	24·4	25·3	29·5	29·0	25·3	48·5	78	16·7	9·5
1865	24·5	22·6	24·5	27·1	26·5	23·2	50·3	80	29·0	9·3
1866	26·5	22·6	25·3	27·1	34·0	24·1	49·8	82	30·7	11·4
1867	23·0	21·7	23·1	24·8	24·2	22·1	48·6	82	28·4	11·8
1868	23·5	22·2	22·7	25·2	25·4	22·9	51·5	78	25·2	12·2
1869	24·6	22·2	23·5	26·6	27·9	23·8	49·5	81	24·0	12·2
1870	24·1	23·8	23·5	26·0	25·0	23·4	48·7	79	18·5	11·1
1871	24·6	22·5	25·6	25·0	26·1	24·0	48·7	81	22·3	10·5
1872	21·5	19·6	21·2	23·6	23·6	20·7	50·7	82	30·0	11·9
1873	22·4	20·5	21·2	25·1	25·3	21·7	48·9	82	23·4	11·8
1874	22·4	20·9	21·7	25·7	25·5	21·0	49·3	82	20·0	11·5
1875	23·6	22·2	22·2	26·2	25·7	23·3	49·2	80	28·2	11·5
1876	21·9	21·0	21·2	24·1	24·0	21·2	50·1	80	24·2	12·1
1877	21·6	19·2	21·5	24·2	24·5	20·5	49·4	79	26·9	13·0
1878	23·1	21·6	22·0	25·2	25·1	23·0	49·6	81	29·2	11·1
1879	22·6	20·9	21·5	26·3	25·5	21·8	46·2	83	31·3	11·3
1880	21·7	19·8	20·8	23·8	24·3	21·3	49·4	84	29·8	11·7
1881	21·3	19·6	20·6	23·5	24·2	20·5	48·7	81	25·2	12·1
1882	21·3	19·8	19·6	24·4	25·2	20·6	49·7	84	25·2	12·8
1883	20·5	19·5	19·0	24·1	24·1	19·5	49·4	82	21·9	12·1
1884	20·4	19·2	19·0	24·9	22·9	19·7	50·7	80	18·1	11·9
1885	19·8	19·2	18·5	24·4	22·5	18·5	48·6	81	24·0	12·0
1886	19·9	19·0	18·0	25·4	23·2	19·1	48·7	81	24·2	11·8
1887	19·6	19·0	17·8	26·1	22·5	18·6	47·8	79	19·9	11·5
1888	18·5	18·3	16·6	25·8	21·8	17·2	47·7	82	27·5	12·3
1889	17·5	17·1	15·7	24·2	20·3	16·7	48·8	83	23·3	10·2
1890	20·3	19·2	18·1	29·6	24·0	18·5	48·6	81	21·9	11·2

Note.—The populations upon which these rates of mortality have been calculated are deduced from the numbers enumerated at the five Censuses of 1841, 1851, 1861, 1871, and 1881. The deaths used for the 49 years 1841–89 are for the calendar years, while those for 1890 are the numbers registered in the 53 weeks ending 3rd January 1891.

Hampstead and Lewisham did not form part of Registration London prior to 1847. Wandsworth was not included in Registration London until the commencement of 1844, but the facts for that district have been included, in calculating the rates in the above Table, for the years 1840–43. The hamlet of Mottingham was transferred from Lewisham District to the Outer Ring on 1st April 1887.

Certain changes affecting the West and Central groups of districts were made in the year 1868, but no corrections for these changes have been made in this Table for any year prior to 1861.

* Approximated to the results of Robinson's anemometer by reduction from Whewell's, up to 1859.

TABLE **10.—LONDON*: Population** at different **Ages,** as enumerated in **1851, 1861, 1871,** and **1881,** with the Numbers of **Males** and **Females** at the various **Ages** in **1881.**

—	All Ages.	0–	5–	10–	15–	20–	25–	35–	45–	55–	65–	75–	85 & upwds.
1851	2,362,236	293,562	243,648	216,369	213,694	241,401	428,123	308,949	208,363	122,946	62,608	19,845	2,728
1861	2,803,989	362,296	300,259	264,349	259,155	277,389	476,802	386,417	246,918	149,503	74,039	23,721	3,141
1871	3,254,260	422,629	349,686	309,658	307,075	321,535	551,973	404,954	290,977	174,265	90,198	27,604	3,656
1881	3,816,483	497,044	419,740	366,111	363,628	385,236	641,265	471,131	320,530	205,921	103,815	32,982	4,080
Males –	1,797,486	248,619	208,193	179,483	171,659	176,186	297,085	222,417	147,616	90,992	42,139	11,877	1,220
Females –	2,018,997	248,425	211,547	186,628	196,969	209,050	344,180	248,714	172,914	114,929	61,676	21,105	2,860

* In England the proportion of Females to Males in the population in 1881 was as 105 to 100; in London it was as 112 to 100. These proportions correspond with those that prevailed in 1871. *See also* note * to Table 6.

TABLE **11.—LONDON: Marriages, Births,** and **Deaths, 1876–1890.**

Years.		1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890 (53 weeks).
Marriages – –		34,007	33,593	33,711	33,477	34,144	34,578	35,612	35,379	35,381	34,560	34,482	34,251	34,635	35,412	36,753
Births –	Persons	127,444	128,092	129,765	131,542	133,310	132,904	133,309	134,563	135,651	132,952	134,339	133,359	131,761	132,233	130,690
	Males –	65,058	65,477	66,241	66,445	67,985	67,556	67,958	68,449	69,106	67,924	68,507	67,569	66,919	67,398	66,483
	Females	62,386	62,615	63,524	65,097	65,325	65,348	65,351	66,054	66,545	65,028	65,832	65,790	64,842	64,835	64,207
Deaths* –	Persons	77,762	77,543	84,298	83,964	81,957	81,431	83,015	81,108	82,448	80,978	82,691	82,443	79,244	76,162	91,243
	Males –	40,126	40,047	43,100	42,920	42,038	41,742	42,141	41,715	42,565	41,285	42,257	42,201	40,495	38,947	46,981
	Females	37,636	37,496	41,198	41,044	39,919	39,689	40,874	39,395	39,888	39,693	40,434	40,242	38,749	37,215	44,262
Excess of Births over Deaths –		49,682	50,549	45,467	47,578	51,353	51,473	50,294	53,395	53,203	51,974	51,648	50,916	52,517	56,071	39,447
Annual Rates per 1000.	Persons Married	19·2	18·7	18·5	18·0	18·1	18·1	18·3	17·9	17·6	16·9	16·6	16·3	16·1	16·3	16·6
	Births –	35·9	35·6	35·5	35·5	35·3	34·7	34·2	34·0	33·7	32·6	32·4	31·6	30·7	30·4	29·1
	Deaths	21·9	21·6	23·1	22·6	21·7	21·3	21·3	20·5	20·4	19·8	19·9	19·6	18·5	17·5	20·3

NOTE.—The figures in the above table, except those for 1890, relate to the calendar year ending 31st December. The figures for 1890 relate to the 53 weeks ending 3rd January 1891.

TABLE **12.**—LONDON. **Population,** and **Zymotic** and

PERIOD AND YEAR.	ESTIMATED POPULATION.	DEATHS FROM PRINCIPAL ZYMOTIC DISEASES.									
		Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric Fever.	Simple and Ill-defined Fever.	Diarrhœa and Dysentery.	Cholera.
Cols. - 1	2	3	4	5	6	7	8	9	10	11	12
Period.											
1841-50	2,103,487	8,416	13,011	18,314		18,079		20,890		16,926	15,588
1851-60	2,570,489	7,150	13,766	26,317		22,497		22,597		26,362	12,886
1861-70	3,018,193	8,347	17,338	34,391	5,323	26,550		27,149		31,578	7,403
1871-80	3,513,843	15,539	17,947	21,247	4,319	28,728	1,887	8,536	2,579	33,168	1,328
1881-90	4,120,514	5,634	25,509	13,286	10,470	27,752	328	7,511	714	29,925	940
1841	1,878,205	1053	973	663		2278		1151		543	28
1842	1,917,108	360	1293	1224		1603		1184		855	118
1843	1,954,041	438	1442	1867		1908		2094		1005	85
1844	2,033,816	1804	1182	3029		1292		1721		831	65
1845	2,073,298	909	2318	1085		1816		1324		940	43
1846	2,113,535	257	747	928		2035		1838		2308	228
1847	2,202,673	955	1778	1433		1600		3297		2283	117
1848	2,244,837	1620	1144	4767		1630		3685		2247	652
1849	2,287,302	521	1154	2149		2349		2564		3837	14,125
1850	2,330,054	499	980	1169		1568		2032		2077	127
1851	2,373,081	1062	1297	1285		2185		2374		2755	213
1852	2,416,367	1159	595	2571		1569		2183		2513	162
1853	2,459,899	211	978	2016		2667		2617		2649	883
1854	2,503,662	694	1409	3477		2502		2816		3325	10,738
1855	2,547,639	1039	878	2611		2438		2460		2190	149
1856	2,591,815	531	1479	1819		2092		2717		2414	152
1857	2,636,174	156	1341	1599		2527		2195		3298	214
1858	2,680,700	242	2369	4184		2708		1919		2220	131
1859	2,725,374	1158	1330	3481	773	1742		1840		3513	193
1860	2,770,181	898	2090	2017	484	2067		1476		1485	51
1861	2,815,101	217	1062	2381	674	3548		1848		2740	168
1862	2,860,117	366	2334	3492	730	2168		3673		1839	106
1863	2,905,210	1996	1634	4955	799	2175		2871		2492	159
1864	2,950,361	547	2788	3244	611	2423		3782		3013	156
1865	2,995,551	640	1290	2179	431	2935		3217		3721	196
1866	3,040,761	1391	2220	1892	462	2960		2688		3294	5596
1867	3,085,971	1345	1143	1451	447	2278		2184		3060	240
1868	3,131,160	597	1962	2916	495	2338		2468		4110	324
1869	3,176,308	275	1456	5841	340	3769	716	1069	615	3495	219
1870	3,221,394	973	1449	6040	334	1956	472	976	570	3814	239
1871	3,267,251	7912	1427	1902	344	2291	384	871	436	3968	221
1872	3,319,736	1786	1680	918	267	3259	174	807	322	3588	181
1873	3,373,065	113	2149	645	320	2620	277	908	325	3950	162
1874	3,427,250	57	1680	2648	419	1867	312	879	337	3201	123
1875	3,482,306	46	1408	3677	581	3204	128	817	272	3289	108
1876	3,538,246	736	1720	2308	387	2737	159	769	202	3585	135
1877	3,595,085	2551	2387	1580	316	1817	157	901	194	2421	88
1878	3,652,837	1417	1500	1808	566	4483	151	1033	197	3534	124
1879	3,711,517	450	2475	2661	575	2934	71	849	160	1894	53
1880	3,771,139	471	1521	3100	544	3516	74	702	134	3738	133
1881	3,831,719	2367	2536	2114	657	1973	92	971	134	3055	95
1882	3,893,272	430	2338	2006	857	4682	53	975	95	2144	79
1883	3,955,814	136	2441	2006	952	1598	55	963	102	2652	83
1884*	4,019,361	1236	2271	1430	951	3156	32	925	78	3903	163
1885*	4,083,928	1419	2909	722	904	2481	28	597	78	2723	77
1886*	4,149,533	24	2086	690	851	2871	13	618	73	3996	137
1887*	4,215,192	9	2904	1443	953	2935	19	612	44	3801	107
1888*	4,282,921	9	2425	1214	1311	2993	9	694	35	2206	54
1889*	4,351,738	—	2308	785	1617	1787	16	538	42	2692	62
1890	4,421,661	4	3291	876	1417	3276	11	618	33	2753	83

NOTE.—Wandsworth was not included in Registration London until 1844, nor Lewisham and throughout, but the population in each year refers

For the years 1840–50 the numbers of deaths from the various diseases are derived from The figures for

Infant Mortality in **50 Years 1841–90.**

Annual Mortality, to 1,000 Persons living, from principal Zymotic Diseases.										Annual Mortality of Infants under One Year of Age to 1000 Births.	Period and Year.
Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric Fever.	Simple and Ill-defined Fever.	Diarrhœa and Dysentery.	Cholera.		
13	14	15	16	17	18	19	20	21	22	23	24
											Period.
0·40	0·62	0·86		0·87	0·98			0·78	0·69	157	1841–50
0·28	0·53	1·02		0·88	0·89			1·03	0·52	155	1851–60
0·28	0·58	1·14	0·18	0·88	0·91			1·04	0·24	162	1861–70
0·46	0·51	0·60	0·12	0·82	0·05	0·24	0·08	0·95	0·04	158	1871–80
0·14	0·62	0·33	0·25	0·67	0·01	0·18	0·02	0·73	0·02	152	1881–90
0·56	0·52	0·35		1·22	0·62			0·29	0·02	160	1841
0·19	0·68	0·64		0·84	0·62			0·45	0·06	157	1842
0·23	0·74	0·96		0·98	1·08			0·52	0·04	163	1843
0·89	0·58	1·49		0·64	0·85			0·41	0·03	152	1844
0·44	1·12	0·53		0·88	0·64			0·45	0·02	149	1845
0·12	0·36	0·44		0·97	0·87			1·10	0·11	157	1846
0·43	0·80	0·64		0·72	1·47			1·02	0·05	166	1847
0·72	0·51	2·13		0·73	1·65			1·00	0·29	158	1848
0·23	0·51	0·94		1·03	1·13			1·68	6·20	169	1849
0·21	0·42	0·50		0·68	0·88			0·89	0·05	140	1850
0·45	0·55	0·54		0·92	1·00			1·16	0·09	154	1851
0·48	0·25	1·06		0·65	0·90			1·04	0·07	151	1852
0·09	0·40	0·82		1·08	1·06			1·08	0·36	158	1853
0·28	0·56	1·39		1·00	1·12			1·33	4·29	164	1854
0·41	0·35	1·02		0·96	0·97			0·86	0·06	152	1855
0·20	0·57	0·70		0·81	1·05			0·93	0·06	150	1856
0·06	0·51	0·61		0·96	0·83			1·25	0·08	156	1857
0·09	0·88	1·56		1·01	0·72			0·83	0·05	160	1858
0·43	0·49	1·28	0·28	0·64	0·68			1·29	0·07	150	1859
0·32	0·75	0·73	0·17	0·74	0·53			0·54	0·02	153	1860
0·08	0·38	0·85	0·24	1·26	0·66			0·97	0·06	155	1861
0·13	0·82	1·22	0·26	0·76	1·28			0·64	0·04	143	1862
0·69	0·56	1·71	0·28	0·75	0·99			0·86	0·05	151	1863
0·19	0·94	1·10	0·21	0·82	1·28			1·02	0·05	169	1864
0·21	0·43	0·73	0·14	0·98	1·07			1·24	0·07	171	1865
0·46	0·73	0·62	0·15	0·97	0·88			1·08	1·84	172	1866
0·44	0·37	0·47	0·15	0·74	0·71			0·99	0·08	159	1867
0·19	0·62	0·93	0·16	0·75	0·79			1·31	0·10	166	1868
0·09	0·46	1·84	0·11	1·19	0·23	0·34	0·19	1·10	0·07	170	1869
0·30	0·45	1·88	0·10	0·61	0·15	0·30	0·18	1·18	0·07	164	1870
2·42	0·44	0·58	0·11	0·70	0·12	0·27	0·13	1·21	0·07	171	1871
0·54	0·50	0·28	0·08	0·98	0·05	0·24	0·10	1·08	0·05	158	1872
0·03	0·64	0·19	0·09	0·78	0·08	0·27	0·10	1·17	0·05	160	1873
0·02	0·49	0·77	0·12	0·54	0·09	0·26	0·10	0·93	0·04	156	1874
0·01	0·40	1·06	0·17	0·92	0·04	0·23	0·08	0·94	0·03	162	1875
0·21	0·48	0·65	0·11	0·77	0·04	0·22	0·06	1·01	0·04	157	1876
0·71	0·66	0·44	0·09	0·51	0·04	0·25	0·05	0·67	0·02	146	1877
0·39	0·41	0·49	0·15	1·23	0·04	0·28	0·05	0·97	0·03	164	1878
0·12	0·67	0·72	0·15	0·79	0·02	0·23	0·04	0·51	0·01	148	1879
0·12	0·40	0·82	0·14	0·93	0·02	0·19	0·04	0·99	0·04	158	1880
0·62	0·66	0·55	0·17	0·51	0·02	0·25	0·03	0·80	0·02	148	1881
0·11	0·60	0·52	0·22	1·20	0·01	0·25	0·02	0·55	0·02	151	1882
0·03	0·62	0·51	0·24	0·40	0·01	0·24	0·03	0·67	0·02	146	1883
0·31	0·56	0·35	0·24	0·78	0·01	0·23	0·02	0·97	0·04	156	1884
0·35	0·71	0·18	0·22	0·61	0·01	0·15	0·02	0·67	0·02	148	1885
0·01	0·50	0·17	0·21	0·69	0·00	0·15	0·02	0·96	0·03	159	1886
0·00	0·69	0·34	0·23	0·70	0·00	0·14	0·01	0·90	0·03	158	1887
0·00	0·56	0·28	0·31	0·70	0·00	0·16	0·01	0·51	0·01	146	1888
—	0·53	0·18	0·37	0·41	0·00	0·12	0·01	0·62	0·01	141	1889
0·00	0·73	0·19	0·32	0·73	0·00	0·14	0·01	0·61	0·02	163	1890

Hampstead until 1847; thus the figures in the above Table do not relate to the same area to the same area as the facts in the other columns.

summaries of 52 or 53 weeks; the numbers for the 39 years 1851–89 relate to calendar years. 1890 are for 53 weeks.

* *See* note (†) Table 1.

TABLE **13.—Causes** of **Deaths** REGISTERED in **London** in each of the 11 Years 1880–1890, and in each Quarter of 1890.

YEARS	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890*	1890. QUARTER ENDING Mar. 29	June 28	Sept. 27	Jan. 3 1891.
CAUSES OF DEATH.	364 Days.	364 Days.	364 Days.	364 Days.	371 Days.	364 Days.	364 Days.	364 Days.	364 Days.	364 Days.	371 Days.	91 Days	91 Days	91 Days	98 Days
ALL CAUSES	81128	81071	82905	80578	‡ 83388	‡ 80504	‡ 82276	‡ 82208	‡ 78848	‡ 75583	‡ 91243	‡ 26525	‡ 19393	‡ 20074	‡ 25251
Small-pox (Vaccinated)	475	2371	108	42	380	398	9	1	5	–	1	–	–	1	–
Small-pox (Unvaccinated)			184	55	417	503	8	1	–	–	–	–	–	–	–
Small-pox (No statement)			139	37	454	502	7	7	4	1	3	1	2	–	–
Measles	1501	2533	2329	2420	2285	2928	2078	2894	2401	2314	3291	338	982	937	1034
Scarlet Fever	3073	2108	2004	1989	1444	707	688	1447	1209	784	876	185	168	227	296
Typhus	72	96	52	56	31	28	13	18	10	15	11	1	6	1	3
Relapsing Fever†	–	–	1	–	1	–	1	–	–	1	–	–	–	–	–
Influenza	11	8	6	11	6	3	5	5	3	5	652	562	47	16	27
Whooping-cough	3438	1961	4647	1582	3188	2479	2834	2928	2987	1749	3276	1227	1051	588	410
Diphtheria	541	654	863	951	973	896	846	961	1301	1588	1417	337	278	308	494
Simple & Ill-defined Fever	125	123	90	90	78	82	70	48	33	43	33	8	7	9	9
Enteric Fever	689	977	975	935	936	585	618	606	677	538	618	106	82	165	265
Simple Cholera	134	95	79	83	163	79	137	106	54	62	83	–	6	69	8
Diarrhœa, Dysentery	3823	3053	2162	2644	3781	2657	3950	3773	2176	2677	2753	147	212	1886	508
Remittent Fever†	–	–	21	17	20	16	20	14	9	12	7	1	3	2	1
Hydrophobia	3	5	4	8	9	27	9	2	3	7	2	1	–	–	1
Glanders	3	2	1	1	–	1	2	4	1	2	1	–	1	–	–
Cowpox and Vaccination†	–	–	14	12	12	7	4	9	4	11	7	–	1	3	3
Venereal Affections	537	551	517	583	537	543	544	498	516	544	541	139	119	157	126
Erysipelas	340	353	347	324	381	328	257	341	249	189	250	61	62	35	92
Pyæmia Septicæmia†	–	–	167	147	159	148	134	155	152	105	135	29	29	25	52
Puerperal Fever	268	332	287	307	327	323	279	328	275	222	237	54	61	49	73
Other Zymotic Diseases†	–	–	35	98	102	104	70	100	76	81	63	24	15	12	12
Thrush	185	178	112	127	119	112	113	80	63	83	77	15	16	27	19
Worms and other Parasitical Diseases	32	23	26	17	17	17	18	22	14	14	17	3	2	8	4
Starvation, Want of Breast Milk†	–	–	127	99	87	92	91	77	61	92	73	17	11	27	18
Alcoholism, Delirium Tremens	164	198	226	283	243	180	220	248	298	386	475	147	97	104	127
Rheumatic Fever, Rheumatism of Heart	467	601	338	384	444	416	362	418	397	331	445	105	83	87	170
			160	145	140	129	104	115	108	131	114	40	21	17	36
Rheumatism	189	162	149	136	163	176	139	157	138	164	169	39	42	43	45
Gout	–	–	113	166	190	170	218	180	230	230	282	71	76	75	60
Rickets†															
Cancer	2229	2358	2442	2547	2623	2624	2688	2874	2856	2982	3258	809	675	866	908
Tabes Mesenterica	1630	1384	1370	1421	1594	1324	1591	1406	1249	1261	1392	252	256	516	368
Tubercular Meningitis	1629	1569	1252	1420	1316	1325	1253	1245	1220	1189	1237	292	340	330	275
Phthisis	8029	8312	8409	8917	8881	8372	8332	7740	7459	7748	9074	2939	1972	1777	2386
Scrofula, Tuberculosis	734	698	749	788	994	890	954	912	862	896	950	229	209	243	269
Other Constitutional Dis. †	–	–	379	508	515	517	521	542	546	528	595	186	116	116	177
Premature Birth	1565	1489	1745	1861	1911	1837	1930	1975	1938	2025	2249	581	521	515	632
Atelectasis†	–	–	100	136	126	150	128	138	161	127	113	23	31	31	28
Congenital Malformations	348	338	325	328	353	376	319	352	345	367	348	81	78	79	110
Old Age	2495	2568	2554	2730	2473	2552	2651	2458	2485	2591	2711	819	598	513	781
Apoplexy	2250	2345	2085	1993	2141	2149	2133	2038	2236	2078	2313	636	526	496	655
Epilepsy	334	373	345	335	378	346	369	345	365	360	443	140	111	87	105
Convulsions	2445	2264	2563	2549	2602	2343	2390	2379	2392	2203	2353	666	523	592	572
Other Diseases of Brain, &c.	4135	4091	4678	4481	4440	4313	4462	4465	4364	4156	5003	1492	1210	1088	1213
Diseases of Organs of Special Sense†	–	–	86	135	121	112	138	98	116	114	144	35	34	30	45
Diseases of Circulatory System	4548	4865	5204	5394	5472	5755	6117	6291	6259	6460	7546	2242	1664	1491	2149

* For comparison of the numbers in 1890 with the corrected averages for the ten years 1880–89, see Table 14.
† In consequence of changes of classification, the deaths from these diseases cannot be given for years prior to 1882.
‡ *See* note (†), Table I.

TABLE **13** (*cont.*)—**Causes** of **Deaths** REGISTERED in **London** in each of the 11 Years 1880–1890; and in each Quarter of 1890.

YEARS	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890*	1890. QUARTER ENDING Mar. 29	June 28	Sept. 27	Jan. 3 1891.
CAUSES OF DEATH.	364 Days.	364 Days.	364 Days.	364 Days.	371 Days.	364 Days.	364 Days.	364 Days.	364 Days.	364 Days.	371 Days.	91 Days	91 Days	91 Days	98 Days
Croup	570	695	873	827	751	674	523	597	494	480	491	160	90	81	160
Bronchitis	11138	9874	11003	10011	9211	10352	11232	10326	10085	8970	12448	4974	1977	1327	4170
Pneumonia	4173	4167	4554	4431	4254	4642	4661	4797	4657	4061	6224	2013	1378	979	1854
Pleurisy	241	240	269	292	261	327	261	323	267	239	329	81	78	64	106
Other Diseases of Respiratory System	1841	1792	1695	1511	1484	1563	1587	1535	1493	1311	1694	630	279	228	557
Dentition	660	653	705	768	796	766	693	623	603	545	628	207	169	116	136
Sore Throat, Quinsy†	–	–	115	113	102	98	89	107	102	92	120	30	32	22	36
Enteritis	429	442	373	364	336	365	518	509	464	570	745	114	113	350	171
Peritonitis	290	371	347	336	340	330	323	338	334	352	372	83	84	104	101
Diseases of Liver	1513	1514	1529	1496	1555	1432	1524	1462	1330	1321	1373	350	335	346	342
Others, Digestive System	1342	1377	1424	1500	1662	1468	1561	1430	1530	1425	1540	351	373	390	426
Diseases of Lymphatic System and Ductless Glands†	–	–	78	100	105	84	115	95	95	108	129	25	33	26	45
Diseases of Urinary System	1600	1677	1732	1985	1878	1955	2049	2100	2116	2020	2209	586	518	480	625
Diseases of Generative System	229	277	317	293	315	273	283	297	270	253	315	81	77	80	77
Accidents of Childbirth	253	228	225	180	193	182	200	163	169	166	212	42	54	59	57
Diseases of Locomotive System†	–	–	433	393	381	357	389	345	368	375	392	103	102	93	94
Diseases of Integumentary System†	–	–	245	253	279	256	273	273	258	217	293	77	58	80	78
ACCIDENT OR NEGLIGENCE.‡															
Fractures and Contusions	897	1030	1034	1076	1065	985	970	1025	994	981	1096	276	251	272	297
Wounds: Gunshot	7	8	3	2	7	6	13	4	5	6	6	–	1	2	3
Wounds: Cut, Stab	21	19	25	14	27	18	10	13	17	17	11	2	2	6	1
Burns and Scalds	238	275	249	280	288	299	285	327	314	297	346	110	48	49	139
Poison	58	77	71	79	60	77	63	64	67	78	61	18	17	8	18
Drowning	326	337	351	360	305	233	325	326	268	319	294	51	74	112	57
Suffocation	605	646	643	626	601	574	595	639	718	691	708	224	153	121	210
Otherwise	128	184	126	115	165	111	132	150	123	86	138	30	30	37	41
Battle	–	–	2	–	1	–	–	–	–	–	–	–	–	–	–
HOMICIDE.‡															
Murder and Manslaughter	89	87	83	75	70	62	68	80	76	79	73	26	18	18	11
SUICIDE.‡															
Wounds: Gunshot	25	28	29	39	42	35	39	53	48	43	45	3	14	7	21
Wounds: Cut, Stab	69	83	61	61	80	67	87	84	65	78	55	15	16	13	11
Poison	74	70	62	81	70	84	93	71	112	78	75	14	25	27	9
Drowning	67	59	64	61	71	42	65	76	52	60	53	11	13	16	13
Hanging	85	83	69	95	71	77	89	75	86	75	82	32	18	12	20
Otherwise	32	39	27	31	33	40	29	39	37	39	41	15	6	11	9
(EXECUTION.)															
Hanging	4	–	2	2	2	4	–	2	1	1	4	1	1	2	–
ALL OTHER CAUSES†	–	–	3458	3438	3500	3045	3258	3060	2923	2784	3003	713	612	888	790

* For comparison of the numbers in 1890 with the corrected averages for the ten years 1880–89, see Table 14.
† In consequence of changes of classification, the deaths from these diseases cannot be given for years prior to 1882.
‡ The evidence at inquests is often insufficient to enable the coroner to certify whether a violent death resulted from accident, murder, manslaughter, or suicide. All such cases are classed under "accident or negligence."

TABLE **14.—Deaths** in several groups of **Ages** and from different **Causes** REGISTERED in **London** during the 53 Weeks of 1890.

CAUSES OF DEATH.	Corrected* Annual Averages, 1880-89.	TOTAL AT ALL AGES.	Under 5 Years.		5 and under 20.	20 and under 40.	40 and under 60.	60 and under 80.	80 and upwds.
			Under 1 Year.	1—5.					
ALL CAUSES‖	89,696·9	91,243	21,252	14,871	5283	11428	16,524	17,972	3913
Small-pox† Vaccinated	677·6	1	–	–	–	1	–	–	–
Small-pox† Unvaccinated		–	–	–	–	–	–	–	–
Small-pox† No Statement		3	–	–	–	1	1	1	–
Measles	2627·2	3291	621	2466	193	5	–	1	–
Scarlet Fever	1714·2	876	46	574	235	20	1	–	–
Typhus	43·4	11	–	1	4	3	2	1	–
Relapsing Fever	0·5‡	–	–	–	–	–	–	–	–
Influenza	7·0	652	30	27	31	162	231	153	18
Whooping-cough	2083·1	3276	1222	1940	112	1	1	–	–
Diphtheria	1062·0	1417	63	862	431	30	25	6	–
Simple and Ill-defined Fever	86·7	33	2	7	9	5	6	3	1
Enteric Fever	836·0	618	5	33	212	273	79	16	–
Simple Cholera	110·0	83	43	11	7	3	16	3	–
Diarrhœa, Dysentery	3405·1	2753	1952	488	24	22	58	152	57
Remittent Fever	17·6‡	7	–	1	–	3	1	2	–
Hydrophobia	8·5	2	–	–	2	–	–	–	–
Glanders	1·9	1	–	–	–	1	–	–	–
Cowpox and Vaccination	10·0‡	7	7	–	–	–	–	–	–
Venereal Affections	595·7	541	372	31	1	53	59	25	–
Erysipelas	344·9	250	61	10	5	29	59	74	12
Pyæmia, Septicæmia	169·2‡	135	20	14	18	38	28	17	–
Puerperal Fever	327·0	237	–	–	11	209	17	–	–
Other Zymotic Diseases	97·7‡	63	21	18	7	4	8	5	–
Thrush	130·0	77	77	–	–	–	–	–	–
Worms & other Parasitical Diseases	22·2	17	1	2	3	7	2	2	–
Starvation, Want of Breast-milk	99·1	73	67	1	–	–	2	3	–
Alcoholism, Delirium Tremens	271·3	475	–	–	–	166	244	63	2
Rheumatic Fever, Rheumatism of Heart	575·7	445	–	17	151	140	94	39	4
Rheumatism		114	–	–	3	10	28	68	5
Gout	174·5	169	–	–	–	6	39	112	12
Rickets	204·3‡	282	92	182	7	–	1	–	–
Cancer	2908·9	3258	3	13	35	316	1477	1322	92
Tabes Mesenterica	1578·5	1392	890	360	87	36	13	6	–
Tubercular Meningitis	1555·0	1237	406	574	219	34	4	–	–
Phthisis	9118·3	9074	123	198	771	4280	3070	623	9
Scrofula, Tuberculosis	940·4	950	329	307	134	122	44	14	–
Other Constitutional Diseases	553·5‡	595	17	17	45	124	183	198	11
Premature Birth	2027·4	2249	2248	1	–	–	–	–	–
Atelectasis	145·5‡	113	113	–	–	–	–	–	–
Congenital Malformations	382·8	348	317	17	11	2	1	–	–
Old Age	2835·0	2711	–	–	–	–	14	1240	1457
Apoplexy	2379·2	2313	29	14	22	146	694	1221	187
Epilepsy	393·6	443	7	16	50	144	135	84	7
Convulsions	2676·7	2353	2036	293	22	–	1	1	–
Other Diseases of Brain, &c.	4834·9	5003	649	716	375	463	1001	1532	267
Diseases of Organs of Special Sense	125·5	144	19	31	42	26	14	9	3
Diseases of Circulatory System	6252·5	7546	103	68	454	1056	2381	3049	435

* The annual averages have been raised for increase of population, and reduced for comparison with the deaths recorded in the 53 weeks of 1890; *see* also note ‡. For the population in each group of ages, estimated to the middle of 1890, *see* Table 19.

† Those cases of small-pox only are returned as "Vaccinated" or as "Unvaccinated" which are so certified by registered medical men. When the medical attendant does not certify that the deceased has, or has not, been vaccinated, or when the cause of death is not certified by a registered practitioner, the case is returned under the heading "No Statement."

‡ In consequence of changes of classification, the deaths from these diseases in years prior to 1882 cannot be ascertained; the corrected averages are therefore derived from the figures for the eight years 1882-89 only.

‖ *See* note † Table I.

TABLE **14** (*continued*).—**Deaths** in several groups of **Ages** and from different **Causes** REGISTERED in **London** during the 53 Weeks of 1890.

CAUSES OF DEATH.	Corrected* Annual Averages, 1880–89.	TOTAL AT ALL AGES.	Under 5 Years.		5 and under 20.	20 and under 40.	40 and under 60.	60 and under 80.	80 and upwds.
			Under 1 Year.	1–5.					
Croup	719·4	491	61	351	78	–	–	1	–
Bronchitis	11342·8	12448	2942	2087	141	413	2034	4027	804
Pneumonia	4925·0	6224	1216	1663	303	896	1193	854	99
Pleurisy	301·7	329	17	31	35	70	99	72	5
Other Diseases of Respiratory System	1754·0	1694	271	278	55	145	422	459	64
Dentition	755·8	628	355	273	–	–	–	–	–
Sore Throat, Quinsy	111·6‡	120	19	30	25	16	15	14	1
Enteritis	484·8	745	381	116	54	55	65	64	10
Peritonitis	372·8	372	31	22	83	109	65	58	4
Diseases of Liver	1628·0	1373	112	11	24	185	581	424	36
Others, Digestive System	1632·8	1540	355	92	97	181	333	417	65
Disease of Lymphatics, &c.	106·4‡	129	5	12	22	41	33	15	1
Diseases of Urinary System	2120·3	2209	25	41	103	360	752	818	110
Diseases of Generative System	311·4	315	7	5	10	128	117	42	6
Accidents of Childbirth	217·3	212	–	–	7	183	22	–	–
Diseases of Locomotive System	415·0‡	392	23	35	135	75	52	67	5
Diseases of Integumentary System	280·3‡	293	72	22	10	23	53	23	20
(ACCIDENT OR NEGLIGENCE.)†									
Fractures and Contusions	1115·6	1096	32	112	163	220	274	232	63
Wounds { Gunshot	6·8	6	–	–	1	3	–	2	–
Wounds { Cut, Stab	20·1	11	–	1	3	2	3	2	–
Burns and Scalds	316·4	346	18	147	67	22	44	39	9
Poison	77·0	61	1	10	5	19	19	6	1
Drowning	349·4	294	4	7	72	124	66	21	–
Suffocation	703·1	708	636	23	6	17	15	11	–
Otherwise	147·5	138	64	6	8	19	23	15	3
(BATTLE.)									
Gunshot Wounds	–	–	–	–	–	–	–	–	–
(HOMICIDE.)†									
Murder and Manslaughter	85·3	73	36	5	4	12	11	4	1
(SUICIDE.)†									
Wounds { Gunshot	42·3	45	–	–	1	27	16	1	–
Wounds { Cut, Stab	81·5	55	–	–	1	17	19	16	2
Poison	88·2	75	–	–	3	33	31	8	–
Drowning	68·5	53	–	–	6	17	16	14	–
Hanging	39·3	82	–	–	2	30	32	18	–
Otherwise	38·5	41	–	–	1	18	17	5	–
(EXECUTION.)									
Hanging	2·0	4	–	–	–	1	2	1	–
All Other Causes	3475·1‡	3003	2578	181	20	26	66	107	25

* *See* note * on preceding page.

† The evidence at inquests is often insufficient to enable the coroner to certify whether a violent death resulted from accident, murder, manslaughter, or suicide. All such cases are classed under "accident or negligence."

‡ *See* note ‡ on preceding page.

TABLE **15.**—**Deaths** REGISTERED in the **London Registration Districts**, and **Mean Temperature** a **Registered Sunshine** at **Greenwich**, in each of the 11 Years 1880–1890.

REGISTRATION DISTRICTS.	AREA in Acres.*	DENSITY, Persons to an Acre, 1881.	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	189
Mean Temperature - - -	—	—	49°·4	48°·7	49°·7	49°·4	50°·7	48°·6	48°·7	47°·8	47°·7	48°·8	49°
Registered Sunshine in Hours -	—	—	1214	1296	1245	1241	1115	1261	1228	1401	1068	1156	125
LONDON - -	77,410	49	81,957	81,431	83,015	81,108	82,448	80,978	82,691	82,443	79,244	76,162	91,2
1a PADDINGTON - - -	1251	86	1881	1871	1946	1974	1974	2040	2062	2023	2152	1925	232
1b KENSINGTON - - -	2190	74	2874	2818	3074	3030	3033	3193	3101	3126	3082	2710	337
2 FULHAM - - - -	4209	27	2231	2472	2500	2618	2696	2761	2781	3201	3207	3183	369
3 CHELSEA - - - -	861	102	2008	1946	2057	2096	2065	2208	2144	2188	1997	1981	210
4 ST. GEO. HANOVER SQ. -	2051	73	3163	3122	3086	3074	3040	2916	3103	2923	2855	2713	314
5 WESTMINSTER - - -	216	216	986	931	880	775	841	772	788	734	634	692	70
6 MARYLEBONE - - -	1506	103	3498	3326	3115	2993	2807	2853	2880	2657	2606	2363	285
7 HAMPSTEAD - - -	2248	20	580	619	666	690	841	770	774	771	778	835	108
8 PANCRAS - - - -	2672	88	5333	5225	5077	4983	5181	5005	5058	5085	4782	4664	527
9 ISLINGTON - - - -	3107	91	5716	5617	5643	5561	5515	5729	5510	5756	5206	5093	608
10 HACKNEY - - - -	3935	47	3545	3990	3683	3756	3964	3793	3789	3847	3823	3613	448
11 ST. GILES - - - -	245	185	1135	1019	1011	1009	1029	890	894	870	694	704	83
12 STRAND - - - -	433	78	1086	997	1037	1026	1018	947	989	912	923	885	92
13 HOLBORN - - - -	816	186	3200	3106	3187	2939	3039	2897	2964	3004	2937	2530	315
14 LONDON CITY - - -	731	70	1417	1469	1450	1448	1390	1422	1343	1364	1308	1177	137
15 SHOREDITCH - - - -	648	195	2959	3001	3247	3023	2873	2950	3216	3071	2962	2635	331
16 BETHNAL GREEN - - -	755	168	2910	3064	3088	3082	2849	2807	3000	2845	2852	2620	296
17 WHITECHAPEL - - -	405	176	2245	2361	2344	2257	2200	2084	2261	2249	2181	2176	254
18 ST. GEO.-IN-THE-EAST -	244	193	1212	1333	1197	1248	1185	1287	1187	1161	1120	1018	132
19 STEPNEY - - - -	569	103	1325	1279	1355	1396	1316	1297	1317	1333	1354	1266	153
20 MILE END OLD TOWN -	679	156	2346	2238	2386	2263	2193	2091	2142	2129	1987	1948	230
21 POPLAR - - - - -	2648	59	3797	3524	3979	3734	3719	3569	3617	3521	3521	3274	409
22 ST. SAVIOUR SOUTHWARK -	1170	167	4599	4270	4754	4366	4647	4229	4555	4469	3597	3797	428
23 ST. OLAVE SOUTHWARK -	1728	78	3364	3346	3514	3310	3382	3031	3397	3359	3168	3109	351
24 LAMBETH - - - -	4060	62	5750	5406	5687	5402	5451	5212	5481	5430	5182	5166	594
25 WANDSWORTH - - -	11707	18	3637	3660	3845	4105	4203	4202	4424	4317	4330	3973	506
26 CAMBERWELL - - -	4450	42	3546	3491	3777	3428	3845	3765	3995	4140	4187	4193	474
27 GREENWICH - - - -	3301	35	2956	3458	3026	2925	3193	3059	3005	3117	3017	3035	340
28 LEWISHAM - - - -	10794	6	1064	1051	1074	1054	1117	1129	1175	1176	1216	1123	128
29 WOOLWICH - - - -	7281	11	1594	1401	1330	1538	1439	1534	1711	1645	1559	1717	195
METROPOLITAN HOSPITALS AND ASYLUMS OUTSIDE REGISTRATION LONDON †	—	—	—	—	—	—	403	536	28	20	27	14	154

NOTE. — This Table is compiled from the Abstracts which appear in the Registrar General's Annual Reports, excepting for the year 189 for which the numbers are derived from the Weekly Returns embracing 53 weeks.

* These areas include 2718 acres of tidal water, or of the river Thames. For area of Greater London see Table 7.

† For the years 1884-89 the figures refer to the Metropolitan Asylum Small pox and Fever Hospitals only ; for the year 1890 the London County, London City, and Metropolitan Lunatic and Imbecile Asylums are added.

TABLE 16.—LONDON. POPULATION; and BIRTHS and DEATHS in REGISTRATION DISTRICTS during the 53 Weeks of 1890.

REGISTRATION DISTRICTS.	Enumerated Population, 1881.	Total Births in 53 Weeks.	Total Deaths in 53 Weeks.	The DEATHS registered in the 53 Weeks include															
				Deaths of		Deaths from													
				Infants under 1 Year of Age.	Persons aged 60 Years and upwards.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus Fever.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.	Cholera.	Violence.	Inquest Cases.	Deaths in Public Institutions.	Uncertified Causes of Death.
LONDON	3815704	130690	91243	21252	21885	4	3291	876	1417	3276	11	618	33	2753	83	3088	6631	21881	821
WEST DISTRICTS	669633	19460	15353	3274	4130	–	605	122	215	487	–	96	6	481	15	475	1025	4237	84
NORTH DISTRICTS	905947	29211	19780	4424	4962	2	629	313	463	656	–	150	12	559	12	628	1449	4338	31
CENTRAL DISTRICTS	282238	7554	6291	1316	1317	–	147	17	113	193	–	40	1	176	5	317	626	1847	32
EAST DISTRICTS	692738	25829	18089	4576	3870	–	750	112	271	747	2	138	5	589	25	695	1832	4685	78
SOUTH DISTRICTS	1265148	48636	30188	7661	7072	1	1160	277	355	1193	9	189	8	940	28	966	1688	5232	596
METROPOLITAN HOSPITALS AND ASYLUMS OUTSIDE REGISTRATION LONDON	—	—	1542	1	534	1	–	35	–	–	–	5	1	8	–	7	11	1542	–
WEST DISTRICTS.																			
a. PADDINGTON	107218	2903	2326	475	641	–	83	2	44	80	–	19	1	63	2	106	202	576	1
b. KENSINGTON	133151	3865	3371	653	1061	–	139	6	17	92	–	16	1	78	–	65	179	1047	4
c. FULHAM	114839	5970	3697	1049	760	–	224	101	78	144	–	34	–	205	6	99	247	620	11
d. CHELSEA	88128	2761	2107	445	574	–	57	10	40	53	–	8	1	58	4	48	154	637	10
e. ST. GEO. HANOVER SQ.	149748	3072	3144	499	901	–	80	2	34	100	–	15	3	58	1	140	209	1232	44
f. WESTMINSTER	46549	889	708	153	193	–	22	1	2	18	–	4	–	19	–	17	34	125	14
NORTH DISTRICTS.																			
g. MARYLEBONE	154910	4455	2855	640	719	1	119	4	18	96	–	9	2	84	–	92	225	477	4
h. HAMPSTEAD	45452	1504	1085	183	276	–	22	91	90	22	–	25	–	25	1	27	65	322	4
i. PANCRAS	236258	7082	5277	1154	1362	–	125	3	99	153	–	26	1	149	3	211	448	1550	9
k. ISLINGTON	282865	9419	6081	1486	1601	1	201	39	53	207	–	30	5	182	5	174	435	984	5
l. HACKNEY	186462	6751	4482	961	1064	–	162	176	203	178	–	60	4	119	3	124	276	1005	9
CENTRAL DISTRICTS.																			
m. ST. GILES	45382	1183	837	168	211	–	16	1	5	14	–	6	–	19	1	27	78	197	2
n. STRAND	33582	536	926	135	230	–	15	–	9	13	–	11	1	14	–	55	109	477	10
o. HOLBORN	151835	5081	3152	879	604	–	98	12	41	144	–	14	–	126	4	99	251	441	13
p. LONDON CITY	51439	764	1376	134	272	–	18	4	58	22	–	9	–	17	–	136	188	732	7
EAST DISTRICTS.																			
q. SHOREDITCH	126591	4469	3319	803	849	–	121	26	42	171	1	16	2	118	4	95	248	851	11
r. BETHNAL GREEN	126961	4811	2961	761	677	–	109	19	63	115	–	18	1	88	2	82	222	641	2
s. WHITECHAPEL	71363	2782	2544	544	421	–	75	8	41	59	–	37	–	68	6	171	326	1313	5
t. ST. GEO.-IN-THE-EAST	47157	1844	1327	383	259	–	60	4	11	54	–	4	1	68	1	26	136	319	16
u. STEPNEY	58542	1904	1534	477	208	–	105	7	25	75	–	16	–	57	1	72	171	289	9
v. MILE END OLD TOWN	105613	4087	2306	629	553	–	78	22	27	121	–	15	–	72	1	55	203	314	31
w. POPLAR	156510	5932	4098	979	898	–	202	26	62	152	1	32	1	118	10	194	526	958	4
SOUTH DISTRICTS.																			
x. ST. SAVIOUR SOUTHWARK	195164	6938	4231	1249	829	–	209	26	29	197	1	15	1	154	4	98	244	367	88
y. ST. OLAVE SOUTHWARK	134632	4946	3512	785	665	–	117	19	31	135	–	18	–	122	4	205	327	915	41
z. LAMBETH	253899	9017	5942	1409	1500	–	185	71	89	191	–	39	4	159	7	184	292	1320	155
aa. WANDSWORTH	210434	9218	5060	1446	1208	–	248	12	42	246	–	33	3	200	7	156	327	473	50
bb. CAMBERWELL	186593	7293	4749	1093	1293	–	163	19	37	199	1	20	–	120	2	103	165	1074	89
cc. GREENWICH	131233	5375	3400	856	778	1	128	119	93	92	6	49	–	107	3	123	198	706	84
dd. LEWISHAM	72548	2819	1289	302	396	–	19	–	13	58	–	7	–	32	–	38	44	132	27
ee. WOOLWICH	80845	3525	1955	521	403	–	91	11	21	75	1	8	–	46	1	59	91	245	62
METROPOLITAN HOSPITALS AND ASYLUMS OUTSIDE REGISTRATION LONDON	—	—	1542	1	534	1	–	35	–	–	–	5	1	8	–	7	11	1542	–

TABLE 17. LONDON.—POPULATION; and BIRTHS and DEATHS in REGISTRATION SUB-DISTRICTS during the 53 Weeks of 1890.

REGISTRATION SUB-DISTRICTS.	Enumerated Population, 1881.	Total Births in 53 Weeks.	Total Deaths in 53 Weeks.	The Deaths registered in the 53 Weeks include													Inquest Cases.	Deaths in Public Institutions.
				Deaths of		Deaths from												
				Infants under 1 Year of Age.	Persons aged 60 Years and upwards.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus Fever.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.	Cholera.	Violence.		
WEST DISTRICTS.																		
St. Mary Paddington *WHH*	69888	2389	1568	401	437	-	68	1	29	65	-	5	-	51	2	33	112	229
St. John Paddington *H* -	37330	514	758	74	204	-	15	1	15	15	-	14	1	12	-	67	90	347
Kensington Town *Ww* -	120141	3144	2719	557	891	-	127	5	13	84	-	15	1	69	-	50	142	869
Brompton *H* - - -	43010	721	652	96	170	-	12	1	4	8	-	1	-	9	-	15	37	178
St. Peter Hammersmith -	7599	220	123	33	35	-	4	-	3	5	-	-	-	8	-	1	8	-
St. Paul Hammersmith *H*	64340	2606	1580	433	343	-	89	6	39	70	-	11	-	83	2	52	111	130
Fulham *Ww* - - -	42900	3144	1994	583	382	-	131	95	36	69	-	23	-	114	4	46	128	490
Kensal Town - - -	30396	1897	1443	263	427	-	43	6	18	36	-	5	1	33	3	24	90	498
Chelsea North *WHHHHH*-	24925																	
Chelsea South *HHH* - -	32807	864	664	182	147	-	14	4	22	17	-	3	-	25	1	24	64	139
Mayfair *WW* - - -	30353	808	718	56	367	-	13	-	-	8	-	2	-	8	-	10	22	488
Belgrave *WHHH* - -	59220	1288	1270	211	283	-	36	1	29	39	-	10	1	21	1	84	108	477
St. John Westminster *HHH*	35496	1067	624	152	139	-	18	1	-	32	-	1	1	18	-	14	37	23
St. Margaret Westmstr. *H* -	24679	409	532	80	112	-	13	-	5	21	-	2	1	11	-	32	42	244
St. James Westminster *WHH*	29941	550	444	94	149	-	12	-	1	12	-	4	-	12	-	10	21	79
St. Anne Soho *HHHHHH*	16608	339	264	59	44	-	10	1	1	6	-	-	-	7	-	7	13	46
NORTH DISTRICTS.																		
All Souls (Mylebo.) *HHHH*	26759	596	687	87	145	-	7	-	6	14	-	3	-	10	-	32	62	336
Cavendish Square *HHHH*-	14891	219	176	23	53	-	1	-	2	7	-	2	-	2	-	5	12	2
Rectory (Marylebone) *WH*-	24809	570	425	92	131	-	19	-	-	7	-	1	1	14	-	8	26	97
St. Mary (Marylebone) *HHH*	21118	1323	414	125	105	-	26	1	1	22	-	-	-	13	-	10	29	35
Christchurch (Marylebo.) *HHH*	33700	941	596	165	123	-	44	2	4	22	-	-	1	26	-	16	52	4
St. John (Marylebone) *H* -	33633	806	557	148	162	1	22	1	5	24	-	3	-	19	-	21	44	3
Hampstead *WwHHHH* -	45452	1504	1085	183	276	-	22	91	90	22	-	25	-	25	1	27	65	322
Regent's Park *H* - -	39115	976	563	141	138	-	9	1	8	23	-	4	-	11	1	19	57	1
Tottenham Court *wHHHH*	27729	641	926	144	192	-	5	-	33	20	-	5	-	18	1	31	58	530
Gray's Inn Lane *HHH* -	30247	828	641	127	112	-	19	1	6	26	-	3	-	17	1	63	103	193
Somers Town *H*- - -	34369	1101	648	175	105	-	25	-	9	22	-	4	-	30	-	30	52	56
Camden Town *WH* - -	17311	611	708	115	307	-	9	-	6	12	-	4	-	9	-	35	75	450
Kentish Town *W* - -	37487	2925	1786	452	418	-	58	1	32	50	-	6	1	64	-	33	103	320
Upper Holloway *WWwH* -	67946	2740	2283	456	714	1	20	3	25	78	-	9	-	68	-	70	138	930
Islington South-west *HH* -	100976	3311	1822	495	361	-	100	23	18	65	-	12	3	62	2	51	138	20
Islington South-east - -	61995	1916	1115	339	270	-	42	10	3	37	-	5	1	35	1	33	99	-
Highbury *H* - - -	52048	1452	861	196	256	-	39	3	7	27	-	4	1	17	2	20	60	34
Stoke Newington *H* - -	22781	782	399	99	123	-	11	4	6	19	-	3	1	6	1	8	19	1
Stamford Hill - - -	9277	421	231	40	73	-	7	1	5	5	-	1	1	2	-	6	13	-
West Hackney *H* - -	37610	1240	699	163	166	-	23	6	6	24	-	2	-	15	-	19	50	83
Hackney *WwwH* - -	76911	2963	2406	423	574	-	86	162	177	90	-	48	-	55	2	69	139	920
South Hackney - - -	39883	1345	747	236	128	-	35	3	9	40	-	6	2	41	-	22	55	1
CENTRAL DISTRICTS.																		
St. George Bloomsbury -	16681	339	202	38	49	-	2	-	4	4	-	3	-	3	-	6	14	-
St. Giles South *WH* - -	14864	577	431	87	121	-	8	-	1	8	-	1	-	13	-	16	49	177
St. Giles North - - -	13837	267	204	43	41	-	6	1	-	2	-	2	-	3	1	5	15	20
St. Martin-in-the-Fields *HH*	17508	267	382	64	72	-	7	-	3	5	-	4	-	4	-	32	54	174
St. Mary-le-Strand *H* -	7515	118	118	21	35	-	3	-	-	1	-	1	-	2	-	4	13	11
St. Clement Danes *H* -	8559	131	320	42	48	-	5	-	6	4	-	6	1	6	-	19	39	186
Strand Un. Work., Edmonton w		10	106	8	75	-	-	-	-	3	-	-	-	2	-	-	3	106
St. Geo. the Martyr *HHHHHH*	18671	481	605	137	92	-	15	1	26	13	-	3	-	21	1	10	29	269
St. Andrew Eastern *W* -	10706	290	230	60	46	-	4	2	4	11	-	-	-	7	-	13	25	48
Saffron Hill *H* - - -	6533	145	118	40	32	-	3	-	-	5	-	-	-	1	-	5	11	-
St. James Clerkenwell -	17516	550	299	81	56	-	7	-	-	14	-	-	-	20	2	15	31	-
Amwell - - - -	19281	545	308	94	58	-	7	2	1	17	-	1	-	15	-	7	20	-
Pentonville - - - -	14773	540	312	110	49	-	13	3	-	16	-	2	-	17	-	12	30	-
Goswell Street - - -	17506	569	265	82	66	-	6	-	1	12	-	3	-	10	1	5	25	-
Old Street *H* - - -	11541	478	237	58	53	-	7	2	3	15	-	1	-	9	-	7	23	5
City Road *HHL* - - -	18628	1059	473	145	78	-	14	2	4	15	-	2	-	13	-	12	29	79
Whitecross Street - -	9217	312	193	57	29	-	17	-	1	16	-	1	-	10	-	7	15	-
Finsbury - - - -	7463	112	71	15	16	-	5	-	1	5	-	1	-	2	-	4	10	-
Holborn Un. Work., Mitcham w		-	41	-	29	-	-	-	-	-	-	-	-	1	-	2	4	40
St. Botolph *H* - - -	11174	281	164	40	55	-	4	-	1	6	-	-	-	5	-	7	12	4
Cripplegate - - - -	7193	104	72	9	25	-	1	-	-	1	-	-	-	1	-	1	10	-
St. Sepulchre *H*- - -	5358	85	822	38	101	-	12	2	56	13	-	8	-	6	-	107	127	716
St. Bride *W* - - -	8396	147	120	23	31	-	-	-	-	1	-	-	-	4	-	4	9	10
Allhallows Barking - -	13666	127	143	17	39	-	-	2	-	-	-	1	-	1	-	14	26	-
Broad Street *H* - - -	5652	40	55	7	21	-	1	-	1	1	-	-	-	-	-	3	4	2

Note.—The letters placed against the names of the sub-districts denote Public Institutions situated therein, namely:—*W*—Workhouse *w*—Workhouse Establishment receiving inmates from other Districts than that in which it stands (see note at the foot of next page) *H*—Hospital; *L*—Lunatic Asylum; *L**—Private Lunatic Asylum in which paupers are received. For detailed list of the several Institutions, see Table 20.

TABLE **17** (*continued*).—LONDON.—POPULATION; and BIRTHS and DEATHS in REGISTRATION SUB-DISTRICTS, during the 53 Weeks of 1890.

REGISTRATION SUB-DISTRICTS.	Enumerated **Population**, 1891.	Total BIRTHS in 53 Weeks.	Total DEATHS in 53 Weeks.	The DEATHS registered in the 53 Weeks include															
				Deaths of		Deaths from													
				Infants under 1 Year of Age.	Persons aged 60 Years and upwards.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus Fever.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.	Cholera.	Violence.	Inquest Cases.	Deaths in Public Institutions.	Uncertified Causes of Death.
EAST DISTRICTS.																			
Shoreditch South *HL**	22343	623	488	121	81	-	24	3	8	26	1	2	-	10	-	15	48	76	2
Hoxton New Town *w*	29937	1079	927	196	366	-	25	7	4	36	-	6	-	31	2	20	54	320	2
Hoxton Old Town	28036	1024	548	173	94	-	23	4	6	45	-	-	-	25	1	20	50	-	3
Haggerston *WH*	46275	1743	1356	313	308	-	49	12	24	64	-	8	2	52	1	40	96	455	4
Bethnal Green North *H*	51157	2005	1015	332	157		41	7	30	42	-	11	-	40	-	34	102	22	2
Bethnal Green South	34399	1287	586	201	87	-	33	5	14	36	-	4	-	27	2	22	58	-	-
Bethnal Green East *WHL**	41405	1519	1360	228	433		35	7	19	37	-	3	1	21	-	26	62	619	-
Spitalfields	22585	758	365	150	60	-	18	-	8	12	-	2	-	16	2	15	40	-	2
Mile End New Town *W*	15473	931	699	129	178	-	24	3	5	11	-	3	-	22	3	9	47	419	2
Whitechapel Church *H*	17490	683	1223	184	142	-	19	4	24	16	-	31	-	22	1	135	207	894	-
Goodman's Fields	9713	183	93	36	13	-	4	1	2	6	-	-	-	3	-	2	13	-	1
Aldgate	6102	227	164	45	28	-	10	-	2	14	-	1	-	5	-	10	19	-	-
St. George's North	38747	1510	823	305	102	-	39	1	9	43	-	3	1	49	-	19	108	-	16
St. John, St. Geo. East *W*	8410	334	504	78	157	-	21	3	2	11	-	1	-	19	1	7	28	319	-
Shadwell *H*	10395	332	551	204	35	-	20	3	11	18	-	6	-	27	-	43	71	289	-
Ratcliff	16107	443	313	80	67	-	22	4	3	8	-	5	-	4	-	14	34	-	1
Limehouse	32041	1129	670	193	106	-	63	-	11	49	-	5	-	26	1	15	66	-	8
Mile End Old Town Western *H*	37960	1661	730	245	145	-	13	11	15	46	-	8	-	24	1	10	60	2	19
Mile End Old Town Eastn. *WwwH*	67653	2426	1576	384	413	-	65	11	12	75	-	7	-	48	-	45	143	312	12
Bow *L**	37074	1307	788	225	123	-	51	4	12	51	-	6	-	31	3	25	59	56	4
Bromley *wwH*	64359	2665	2015	418	532	-	44	11	8	42	-	11	-	57	3	99	269	816	-
Poplar *WWH*	55077	1960	1295	336	243	-	107	11	42	59	1	15	1	30	4	70	198	86	-
SOUTH DISTRICTS.																			
Christchurch Southwark *WH*	13663	420	305	73	79	-	22	1	-	9	-	1	-	9	1	12	25	47	5
St. Saviour Southwark	14999	475	290	80	46	-	28	4	-	19	-	-	-	9	-	13	21	-	7
Kent Road	21381	715	440	128	53	-	22	2	3	21	-	1	-	21	-	13	38	-	6
Borough Road *WH*	15953	636	524	152	61	-	18	2	5	42	1	1	-	23	-	18	47	161	5
London Road *HL*	21318	700	453	151	69	-	17	2	2	22	-	1	1	12	1	13	33	28	11
Trinity Newington	26672	924	523	156	107	-	24	6	9	17	-	5	-	23	-	7	24	-	10
St. Peter Walworth *W*	59555	2138	1269	368	313	-	51	7	7	54	-	4	-	36	2	14	34	131	30
St. Mary Newington	21623	930	477	141	101	-	27	2	3	12	-	2	-	21	-	8	22	-	14
St. Olave Southwark *WH*	11956	448	326	99	130	-	5	2	18	12	-	7	-	22	1	124	163	574	4
Leather Market	16300	555	299	106	31	-	8	3	1	14	-	3	-	21	-	6	18	-	2
St. Mary Magdalen *W*	15669	651	417	100	107	-	11	3	1	11	-	2	-	14	-	8	27	84	5
St. James Bermondsey	54683	1914	944	244	160	-	55	6	6	48	-	2	-	28	2	27	53	-	15
Rotherhithe *WH*	36024	1378	1026	336	237	-	38	5	5	50	-	4	-	37	1	40	66	257	15
Waterloo Road First *H*	15195	538	330	99	56	-	21	-	1	5	-	1	-	13	-	16	26	47	8
Waterloo Road Second *H*	16351	946	333	123	49	-	13	-	2	6	-	-	1	11	-	9	27	14	12
Lambeth Church First *H*	19876	624	928	172	132	-	16	8	51	19	-	22	-	24	-	93	118	555	11
Lambeth Church Second *WW*	39859	1678	1375	285	419	-	33	2	3	41	-	-	1	31	4	18	46	636	34
Kennington First	45232	1685	883	273	220	-	44	3	5	44	-	5	1	27	2	14	27	6	29
Kennington Second	35332	969	626	123	207	-	20	5	8	15	-	2	-	15	-	14	21	-	18
Brixton *w*	62837	1952	1143	270	312	-	31	52	19	47	-	7	1	29	1	17	20	54	33
Norwood *W*	19017	625	324	64	105	-	7	1	-	14	-	2	-	9	-	1	7	8	10
East Battersea	54675	2231	1196	435	165	-	90	4	5	86	-	10	-	62	3	33	96	-	17
West Battersea *WwH*	52987	2374	1658	420	430	-	69	6	22	66	-	9	3	57	3	43	98	381	11
Clapham *H*	36389	1027	616	151	183	-	19	2	4	16	-	3	-	17	-	18	30	6	11
Wandsworth *WHL*	28004	1412	762	220	169	-	47	-	10	35	-	5	-	37	-	31	60	73	-
Putney	13235	443	233	68	61	-	10	-	-	8	-	1	-	9	-	10	18	-	-
Streatham *w*	25553	1231	593	152	200	-	13	-	1	35	-	5	-	18	1	16	25	13	11
Dulwich	5590	74	67	13	25	-	-	-	1	4	-	-	-	1	-	4	4	-	1
Camberwell *WwL*L**	59104	2291	2079	330	678	-	47	5	16	46	-	8	-	45	1	36	53	972	24
Peckham *W*	71089	2657	1545	415	398	-	64	6	13	99	-	7	-	36	1	44	64	102	38
St. George (Camberwell)	50810	2276	1058	335	192	-	52	8	7	50	1	5	-	38	-	19	44	-	26
St. Paul Deptford *w*	76752	3333	1886	518	343	1	77	114	72	65	6	40	-	65	2	57	98	214	53
St. Nicholas Deptford	7901	246	140	45	20	-	13	-	1	3	-	1	-	10	-	5	8	-	9
Greenwich West *H*	21972	687	384	92	110	-	7	1	11	5	-	1	-	8	-	16	26	13	13
Greenwich East *WHH*	24608	1109	990	201	305	-	31	4	9	19	-	7	-	24	1	45	66	479	9
Eltham *H*	5048	138	62	9	17	-	1	-	-	1	-	1	-	1	-	2	2	5	-
Lee *H*	21559	464	289	61	108	-	1	-	2	20	-	1	-	7	-	8	13	17	3
Lewisham *WH*	19865	906	495	112	155	-	5	-	10	18	-	2	-	11	-	17	19	100	6
Sydenham *H*	26076	822	443	120	116	-	12	-	1	19	-	3	-	13	-	11	10	10	18
Charlton *HH*	10930	326	213	41	45	-	6	3	4	4	-	4	-	6	-	8	8	37	7
Woolwich Dockyard	17617	573	308	87	64	-	27	-	3	8	-	1	-	7	-	7	15	-	11
Woolwich Arsenal *HH*	19048	693	410	126	68	-	25	1	2	19	-	1	-	10	-	15	31	5	12
Plumstead West *H*	14009	535	240	62	56	-	4	2	4	7	-	2	-	6	-	5	6	-	6
Plumstead East *W*	19241	1398	784	205	170	-	29	5	8	37	1	-	-	17	1	24	31	203	26
Banstead Asylum	-	-	-	303	-	96	-	-	-	-	-	-	1	-	-	-	-	303	-
Caterham Asylum	-	-	-	205	-	97	-	-	-	-	-	3	-	4	-	-	-	205	-
Cane Hill Asylum	-	-	-	115	-	26	-	-	-	-	-	-	-	-	-	-	2	115	-
Hospital Ships and Camp	-	-	-	5	-	-	1	-	4	-	-	-	-	-	-	-	-	5	-
Darenth Asylum	-	-	-	140	-	61	-	-	-	-	-	-	-	1	-	3	3	140	-
City of London Asylum	-	-	-	20	-	7	-	-	-	-	-	-	-	-	-	1	1	20	-
Hanwell Asylum	-	-	-	168	-	53	-	-	-	-	-	1	-	-	-	2	3	168	-
Colney Hatch Asylum	-	-	-	242	1	72	-	-	-	-	-	1	-	3	-	1	2	242	-
Winchmore Hill Asylum	-	-	-	35	-	-	-	-	31	-	-	-	-	-	-	-	-	35	-
Leavesden Asylum	-	-	-	309	-	122	-	-	-	-	-	-	-	-	-	-	-	309	-

TABLE 18.—OUTER RING (excluding Metropolitan Workhouses, Hospitals, and Asylums).—AREA; POPULATION BIRTHS and DEATHS Registered during the 53 Weeks of 1890.

District and Sub-district Numbers.	REGISTRATION SUB-DISTRICTS.	Area in Acres, including Tidal Water and Foreshore.	Enumerated Population, 1881.	BIRTHS.	DEATHS.	The DEATHS registered in the 53 Weeks include													
						Deaths of		Deaths from											
						Infants under 1 Year of Age.	Persons aged 60 Years & upwds.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Fever.	Diarrhœa.	Cholera.	Violence.	Inquest Cases.	Deaths in Public Institutions.	Uncertified Causes of Death.
	LONDON—OUTER RING	370,924	950,957	41,969	22,361	5848	5556	–	959	156	403	802	203	803	17	660	1281	1761	36
30 : 1	Carshalton *w* – –	12228	21118	566	258	67	85	–	–	1	13	6	–	6	–	11	11	3	2
2	Epsom, *part of* WwH*	9971	10710	259	193	36	70	–	–	4	–	7	–	–	–	5	10	55	1
37 : 1	Godstone, *part of * W*	2754	1235	59	17	4	4	–	–	–	4	–	–	–	–	–	–	3	–
38 : 1	Croydon *WwHH* –	20851	101241	3333	2085	469	624	–	111	14	50	78	13	54	1	46	143	271	5
2	Mitcham *w* – – –	11697	17932	626	260	64	75	–	11	1	3	2	1	10	1	9	22	2	4
39 : 1	Wimbledon *HHH* –	3220	15950	696	291	71	78	–	11	–	5	–	–	2	–	5	12	10	2
2	Kingston *WHH* – –	8549	36354	1205	672	162	222	–	1	–	5	13	–	20	–	14	41	110	6
3	Esher, *part of* H* –	6601	9221	321	154	31	50	–	1	–	1	1	–	2	1	11	16	1	–
4	Hampton *H* – –	4573	13539	458	254	56	84	–	1	1	–	3	4	8	–	19	19	3	–
40 : 1	Richmond *WH* – –	2272	21302	595	426	72	153	–	6	2	3	15	3	6	1	28	42	90	–
2	Mortlake – – –	2941	12331	475	296	85	61	–	21	2	–	21	1	5	1	25	35	1	1
41 : 1	Bromley, *pt. of* HHHH*	15689	31142	1197	535	126	144	–	50	2	14	21	2	8	–	13	20	16	13
2	Chislehurst, *pt. of* WHH*	14307	15844	580	308	78	108	–	5	–	4	14	3	2	–	5	8	65	7
42 : 1	Bexley *H* – – –	13437	24134	957	459	135	135	–	1	–	1	11	1	16	1	22	35	5	19
2	Dartford Workh., *pt. of**	—	—	7	40	1	21	–	–	–	–	–	1	–	–	1	1	40	–
124 : 1	Sunbury *w* – – –	11055	11685	364	183	40	54	–	6	–	4	5	3	3	–	8	19	4	–
2	Staines *WH* – – –	13277	12089	400	260	52	81	–	17	–	–	13	–	4	–	11	17	40	–
125 : 1	Hillingdon *WHH* –	6029	10802	391	218	53	70	–	5	1	3	1	1	3	–	8	24	38	–
2	Uxbridge – – –	6178	5225	136	82	16	33	–	4	–	6	–	–	1	–	4	7	–	–
3	Hayes *wH* – – –	14587	11523	351	176	48	43	–	23	–	2	4	2	4	–	4	10	6	1
126 : 1	Isleworth *WHH* – –	7008	22727	740	499	107	146	–	36	6	7	15	4	10	–	9	31	96	1
2	Twickenham *HH* –	2477	12479	443	230	59	68	–	3	2	7	11	2	7	1	12	21	11	–
3	Brentford *HHHL*– –	4345	27649	1048	617	152	171	–	45	11	14	12	9	30	–	15	42	23	7
4	Chiswick – – – –	1340	15975	651	364	92	85	–	20	3	3	12	–	17	–	11	29	–	–
5	Acton *wH* – – –	6083	22876	913	456	120	107	–	21	7	15	4	2	29	–	14	43	2	–
127 : 1	Harrow *HH* – –	13809	12796	389	214	47	73	–	3	2	5	3	–	3	–	6	14	4	–
2	Edgware *H* – – –	6994	3749	99	58	7	21	–	4	–	–	1	–	–	–	–	6	1	–
3	Willesden *H*– – –	4383	27453	1853	905	292	173	–	33	2	21	41	9	41	–	15	60	2	3
4	Hendon *W* – – –	8382	10484	515	351	83	108	–	15	–	1	5	1	22	–	17	23	118	–
137 : 1	Bushey – – – –	9331	6621	201	94	22	38	–	–	–	1	3	–	4	–	1	7	2	–
2	Watford Workh., *pt. of**	—	—	–	6	–	2	–	–	–	–	–	–	–	–	–	1	6	–
128 : 1	South Mimms *H*– –	15599	6391	240	100	15	34	–	–	–	1	–	–	3	–	5	5	2	1
2	Barnet *WHH* – –	5433	10092	269	180	30	73	–	12	–	1	10	1	2	1	7	12	45	–
3	Finchley *HH* – –	4688	17615	747	314	74	84	–	7	1	3	11	–	7	1	4	18	9	–
135 : 1	Hatfield, *part of** –	3306	583	8	11	–	4	–	–	–	–	–	–	–	–	–	–	–	–
129 : 1	Hornsey *H* – – –	3039	37078	1417	696	159	202	–	15	5	11	21	6	15	2	16	39	3	1
2	Tottenham *H* – –	4642	46456	3226	1615	476	287	–	103	16	24	76	32	70	–	45	101	71	2
3	Edmonton *Ww* – –	7483	23463	1092	636	141	182	–	23	5	7	37	5	30	–	17	40	109	3
4	Enfield *WH*– – –	12653	19104	975	481	144	94	–	28	1	2	12	6	20	–	18	23	34	6
5	Waltham Abbey – –	11017	5368	181	95	21	31	–	8	–	1	1	–	–	–	3	6	–	–
6	Cheshunt *H*– – –	8480	7735	285	153	32	40	–	15	–	1	2	2	4	–	2	5	1	–
186 : 1	Stratford *H* – – –	882	38606	1542	799	248	132	–	11	9	14	34	6	38	–	46	53	18	2
2	West Ham *wHHH* –	4055	90347	5683	2969	898	429	–	204	41	37	132	35	127	2	97	126	49	12
3	East Ham *ww* – –	3296	10706	1067	482	189	58	–	16	1	8	27	5	38	1	12	20	1	1
4	Leyton *WwL* – –	4372	32430	2148	1290	315	376	–	35	2	45	53	16	41	2	8	20	309	2
5	Walthamstow *HH* –	6520	28869	1834	875	268	168	–	32	9	35	47	12	62	1	12	20	7	2
187 : 1	Chigwell, *part of* H*–	11761	9669	346	189	46	56	–	9	–	3	4	3	8	–	7	10	3	–
2	Epping Work., *pt. of** –	—	—	3	8	–	5	–	–	–	–	–	–	–	–	–	–	8	–
189 : 1	Romford, *part of* W* –	6730	3411	140	96	19	33	–	1	–	–	2	1	2	–	–	–	34	1
2	Ilford – – – –	8493	7645	294	164	35	42	–	1	2	17	3	4	4	–	4	6	–	–
3	Barking Town – –	4127	9203	644	250	91	39	–	–	3	1	8	7	15	–	8	8	–	1

* The parts of sub-districts included within that portion of the Metropolitan Police District which forms the Outer Ring are as follow:—30 : 2, the whole of Epsom sub-district, except the parishes of Ashstead and Headley (pop. 1265); 37 : 1, the two parishes of Warlingham and Farley in Godstone sub-district; 39 : 3, the whole of Esher sub-district, except the parish of Esher (pop. 1993); 41 : 1, the whole of Bromley sub-district, except the two parishes of Cudham and Knockholt (pop. 1818); 41 : 2, the whole of Chislehurst sub-district, except the parish of Chelsfield (pop. 947); 135 : 1, only the parish of Northaw in Hatfield sub-district; 187 : 1, the whole of Chigwell sub-district, except the parish of Theydon-Bois (pop. 875); 189 : 1, only the parish of Dagenham in Romford sub-district. Deaths belonging to the Outer Ring occurring in workhouses in Dartford, 42 : 2, Watford, 137 : 2, and Epping, 187 : 2, are also included.

TABLE 19.—**Temperature** at **Greenwich**; **Population**; **Total Deaths**, and **Deaths** at **Seven groups of Ages**, in **London**, in each Week of 1890.

POPULATION estimated to the middle of 1890 - -					4,421,661	129,288	446,572	1,337,544	1,480,228	750,233	261,137	16,659
Number of Week.	WEEK ENDING	TEMPERATURE.			AGES AT DEATH.							
		Mean.	Highest Reading.	Lowest Reading.	ALL AGES.	Under 1 Year.	1–5	5–20	20–40	40–60	60–80	80 and upwards.
	YEAR (of 53 Weeks)	° 48·6	° 82·8	° 13·1	91,243*	21,252	14,871	5,283	11,428	16,524	17,972	3,913
	March Quarter (13 Weeks).	41·4	68·8	13·1	25,989	4,996	3,794	1,385	3,559	5,345	5,689	1221
	June „ (13 Weeks).	52·8	80·2	31·1	19,047	4,366	3,592	1,255	2,361	3,211	3,466	796
	September „ (13 Weeks).	59·4	82·8	37·1	19,965	6,259	3,467	1,120	2,234	3,075	3,148	662
	December „ (14 Weeks).	40·8	73·0	13·4	25,251	5,631	4,018	1,490	3,013	4,544	5,375	1,180
	1890.											
1	January 4	32·8	47·9	22·0	2371	398	310	126	346	541	552	98
2	„ 11	47·6	55·0	36·7	2747	430	375	134	367	670	640	131
3	„ 18	45·5	52·9	33·9	2720	415	344	150	450	666	576	119
4	„ 25	42·7	54·3	32·5	2227	386	294	95	349	510	503	90
5	February 1	42·9	51·7	33·0	1849	350	250	103	282	369	390	105
6	„ 8	37·1	46·9	27·7	1749	372	254	88	238	334	363	100
7	„ 15	35·9	44·5	27·7	1809	352	306	105	218	357	390	81
8	„ 22	39·4	50·5	33·8	1847	393	259	101	256	363	374	101
9	March 1	35·4	47·2	25·3	1802	367	263	109	234	324	418	87
10	„ 8	36·4	54·1	13·1	1889	394	294	110	226	348	428	89
11	„ 15	45·3	61·1	29·6	1771	392	271	113	196	303	404	92
12	„ 22	43·3	59·1	31·9	1687	381	270	78	193	296	342	77
13	„ 29	49·0	68·8	36·1	1571	366	304	73	204	264	309	51
14	April 5	43·8	61·0	31·3	1419	310	253	94	183	239	285	55
15	„ 12	43·2	57·0	32·9	1619	372	298	104	204	275	308	58
16	„ 19	46·1	60·0	31·1	1611	356	322	104	177	282	291	79
17	„ 26	47·1	63·2	33·3	1567	369	286	87	197	255	313	60
18	May 3	50·7	68·9	35·9	1533	337	294	90	210	227	305	70
19	„ 10	52·4	66·1	40·0	1469	360	251	101	170	243	274	70
20	„ 17	55·3	71·9	42·3	1466	339	266	102	178	261	257	63
21	„ 24	58·3	77·1	41·2	1451	335	307	97	166	235	239	72
22	„ 31	54·0	76·6	39·5	1411	349	250	114	186	222	244	46
23	June 7	56·5	70·1	36·6	1393	285	280	102	186	250	235	55
24	„ 14	56·6	75·4	42·6	1375	297	267	94	172	229	247	69
25	„ 21	59·3	77·5	47·0	1387	318	262	92	177	239	248	51
26	„ 28	60·6	80·2	48·1	1346	339	256	74	155	254	220	48
27	July 5	55·7	71·1	45·5	1481	423	281	89	165	239	237	47
28	„ 12	55·7	72·1	41·9	1471	428	281	91	174	214	231	52
29	„ 19	61·4	76·6	49·5	1522	445	277	101	157	249	250	43
30	„ 26	61·6	78·1	47·1	1418	438	282	73	132	227	219	47
31	August 2	62·9	81·7	48·1	1683	554	286	98	186	232	277	50
32	„ 9	62·6	82·8	48·1	1594	549	294	72	171	225	230	53
33	„ 16	61·1	76·5	51·2	1751	635	294	90	169	263	246	54
34	„ 23	59·0	75·9	49·1	1629	603	292	69	148	233	235	49
35	„ 30	54·4	68·4	41·2	1659	525	282	104	190	265	234	59
36	September 6	58·4	77·7	37·1	1514	459	247	90	177	240	245	56
37	„ 13	59·4	77·5	46·7	1410	395	217	75	183	238	256	46
38	„ 20	60·4	75·5	46·3	1375	376	227	64	200	214	232	62
39	„ 27	58·8	74·1	48·6	1458	429	207	104	182	236	256	44
40	October 4	56·7	73·0	42·3	1413	453	193	100	170	223	253	41
41	„ 11	54·3	68·6	36·6	1472	437	212	98	180	240	254	51
42	„ 18	47·7	64·9	33·9	1741	491	260	119	204	316	281	70
43	„ 25	48·2	58·6	37·2	1649	429	306	100	200	264	296	54
44	November 1	43·6	57·9	24·7	1817	413	303	111	206	336	372	76
45	„ 8	45·2	55·9	35·7	1734	393	283	109	222	331	318	78
46	„ 15	44·5	56·6	33·0	1709	392	257	109	239	296	343	73
47	„ 22	50·0	55·7	39·5	1716	369	308	112	226	283	350	68
48	„ 29	34·3	58·2	18·3	1527	296	266	100	207	277	300	81
49	December 6	35·3	43·1	22·0	1733	362	296	100	205	317	372	81
50	„ 13	30·6	39·2	21·1	1787	354	304	109	210	319	391	100
51	„ 20	26·9	33·1	16·7	2206	414	384	101	257	419	514	117
52	„ 27	28·1	36·2	13·4	2231	389	333	102	251	412	602	142
53	Jauuary 3	28·6	37·3	19·1	2516	459	313	120	236	511	729	148

* The deaths in Metropolitan Lunatic and Imbecile Asylums situated outside Registration London are included in the figures from the 31st week onwards, but not previously; the figures for the year, however, have been corrected, and are not therefore the totals of those in the several succeeding lines.

TABLE 20.—Deaths in 192 Public Institutions,

	DEATHS.		
	Total.	Males.	Females.
TOTAL DEATHS IN 192 PUBLIC INSTITUTIONS	21881	12492	9389
68 WORKHOUSES AND WORKHOUSE INFIRMARIES	11263	6284	4979
7 METROPOLITAN ASYLUM HOSPITALS	1019	524	495
59 GENERAL HOSPITALS	6607	3962	2645
27 HOSPITALS FOR SPECIAL DISEASES	674	351	323
7 LYING-IN HOSPITALS (*Women*)	6	–	6
7 LYING-IN HOSPITALS (*Children*)	67	44	23
5 MILITARY AND NAVAL HOSPITALS	182	176	6
3 HOSPITALS FOR FOREIGNERS	181	120	61
16 LUNATIC ASYLUMS	1882	1031	851

PUBLIC INSTITUTIONS.	SUB-DISTRICTS.	DEATHS. Total.	Males.	Females.
WORKHOUSES AND WORKHOUSE INFIRMARIES.				
Paddington Workhouse	1*a*; 1. St. Mary Paddington	27	12	15
Paddington Infirmary	1*a*; 1. St. Mary Paddington	142	82	60
Kensington Workhouse	1*b*; 1. Kensington Town	32	16	16
Kensington Infirmary	1*b*; 1. Kensington Town	407	209	198
Marylebone Infirmary	1*b*; 1. *Kensington Town*	430	234	196
Fulham Workhouse	2; 3. Fulham	26	15	11
Fulham Infirmary	2; 3. Fulham	320	143	177
Chelsea Workhouse	3; 2. Chelsea North	32	11	21
Chelsea Infirmary	3; 2. Chelsea North	256	144	112
St. George's Workhouse (Fulham Road)	4; 1. Mayfair	6	4	2
St. George's Infirmary (Fulham Road)	4; 1. Mayfair	482	275	207
St. George's Workhouse (Wallis's Yard)	4; 2. Belgrave	8	3	5
Westminster	5; 1. St. James Westmr.	75	43	32
Marylebone	6; 3. Rectory Marylebone	86	48	38
Hampstead	7; 1. Hampstead	64	38	26
Central London Sick Asylum	8; 2. *Tottenham Court*	221	144	77
Pancras	8; 5. Camden Town	400	180	220
Pancras Infirm. (Highgate)	8; 6. Kentish Town	320	181	139
Islington Workhouse (St. John's Road)	9; 1. Upper Holloway	25	14	11
Islington Infirmary (St. John's Road)	9; 1. Upper Holloway	540	291	249
Islington Workhouse (Cornwallis Road)	9; 1. Upper Holloway	1	–	1
Islington Work. Sch.	9; 1. Upper Holloway	1	1	–
Holborn Infirmary	9; 1. *Upper Holloway*	281	185	96
Hackney Workhouse	10; 4. Hackney	18	8	10
Hackney Infirmary	10; 4. Hackney	385	216	169
City of London	10; 4. *Hackney*	19	8	11
St. Giles	11; 2. St. Giles South	173	105	68
Strand Union Workhouse	12; 3. St. Clement Danes	3	3	–
Strand	129; 3. *Edmonton*	106	54	52
Holborn	13; 2. St. Andrew Eastern	48	35	13
Holborn	38; 2. *Mitcham*	40	33	7
City of London	14; 4. St. Bride	10	6	4
Holborn Workhouse	15; 2. *Hoxton New Town*	320	130	190
Shoreditch Workhouse	15; 4. Haggerston	9	5	4
Shoreditch Infirmary	15; 4. Haggerston	339	195	144
Bethnal Green	16; 3. Bethnal Green East	462	265	197
Whitechapel Infirmary	17; 2. Mile End New Town	419	253	166
St. George-in-the-East Workhouse	18; 2. St. John	2	1	1
St. George-in-the-East Infirmary	18; 2. St. John	317	166	151
Mile End Workhouse	20; 2. Mile End O. T. East	7	5	2
Mile End Infirmary	20; 2. Mile End O. T. East	249	127	122
WORKHOUSES AND WORKHOUSE INFIRMARIES—*continued.*				
Whitechapel (South Grove)	20; 2. *Mile End O.T. East*	1	1	–
City of London Infirmary (*part of*)	20; 2. *Mile End O. T. East.*	55	7	48
City of London Infirmary (*part of*)	21; 2. *Bromley*	154	114	40
Poplar and Stepney Sick Asylum	21; 2. *Bromley*	571	344	227
Stepney (Aged and Infirm)	21; 2. *Bromley*	45	24	21
Poplar	21; 3. Poplar	86	61	25
St. Saviour's	22; 1. Christch. Southwrk.	47	45	2
St. Saviour's	22; 4. Borough Road	19	8	11
St. Saviour's	22; 7. St. Peter Walworth	131	43	88
St. Olave's	23; 1. St. Olave	42	21	21
St. Olave's	23; 3. St. Mary Magdalen	84	38	46
St. Olave's Infirmary	23; 5. Rotherhithe	256	175	81
Lambeth Workhouse (Renfrew Road)	24; 4. Lambeth Church 2nd	32	15	17
Lambeth Infirmary (Brook Street)	24; 4. Lambeth Church 2nd	604	319	285
Lambeth (Work. School)	24; 8. Norwood	8	6	2
Wandsworth Infirmary	25; 2. West Battersea	370	209	161
Westminster Indus. Sch.	25; 2. *West Battersea*	1	–	1
Wandsworth Workhouse	25; 4. Wandsworth	7	4	3
St. Anne's Home	25; 6. *Streatham*	13	13	–
Camberwell Workhouse	26; 2. Camberwell	108	48	60
Camberwell Infirmary	26; 2. Camberwell	235	146	89
St. Saviour's Infirmary	26; 2. *Camberwell*	530	338	192
Camberwell (Gordon Rd.)	26; 3. Peckham	102	39	63
Greenwich Workhouse	27; 4. Greenwich East	61	21	40
Greenwich Infirmary	27; 4. Greenwich East	291	169	122
Lewisham	28; 3. Lewisham	100	53	47
Woolwich Workhouse	29; 5. Plumstead East	1	1	–
Woolwich Infirmary	29; 5. Plumstead East	201	134	67
METROPOLITAN ASYLUM HOSPITALS.				
Western	2; 3. *Fulham*	144	74	70
North-Western	7; 1. *Hampstead*	206	100	106
Eastern	10; 4. *Hackney*	361	187	174
South-Western	24; 7. *Brixton*	54	31	23
South-Eastern	27; 1. *St. Paul Deptford*	214	111	103
Hospital Ship	42; 2. *Dartford*	5	4	1
Northern	129; 3. *Edmonton*	35	17	18
GENERAL HOSPITALS.				
For Children	1*a*; 1. St. Mary Paddington	57	27	30
St. Mary's	1*a*; 2. St. John Paddington	347	223	124
Queen's Jubilee	1*b*; 2. Brompton	4	2	2
West London	2; 2. St. Paul Hammersm.	130	69	61
St. Camillo's	3; 2. Chelsea North	4	4	–
Victoria (*Children*)	3; 3. Chelsea South	134	72	62
Cheyne (*Children*)	3; 3. Chelsea South	5	3	2
St. George's	4; 2. Belgrave	430	261	169
Belgrave (*Children*)	4; 2. Belgrave	10	5	5
St. Gabriel's (*Children*)	4; 2. Belgrave	27	19	8
Westminster	4; 4. St. Margaret Westm.	244	145	99
Home Hospital	5; 2. St. Anne Soho	4	3	1
Middlesex	6; 1. All Souls Marylebone	328	172	156
St. Elizabeth's Home	6; 1. All Souls Marylebone	3	–	3
Ladies'	6; 2. Cavendish Square	2	–	2
Samaritan Free *	6; 4. St. Mary Marylebone	18	–	18
For Incurables	6; 5. Christchurch	1	–	1
St. Peter's Home (Kilburn)	7; 1. Hampstead	23	1	22
Home Hospital	7; 1. Hampstead	4	1	3

NOTE.—Institutions in which no deaths occurred during the year are not shown in the Table. The Workhouse Establishments printed in *italics* receive inmates from other Districts than those in which they are situated.

* Branches of this Hospital situated in Rectory and Christchurch, Marylebone, were closed during the year.

registered during the 53 Weeks of 1890.

PUBLIC INSTITUTIONS.	SUB-DISTRICTS.	DEATHS. Total.	Males.	Females.
GENERAL HOSPITALS—*continued.*				
University College	8; 2. Tottenham Court	297	182	115
Home	8; 2. Tottenham Court	8	6	2
Medical & Surgical Home	8; 2. Tottenham Court	4	3	1
Royal Free	8; 3. Gray's Inn Lane	184	111	73
Temperance	8; 4. Somers Town	53	33	20
North-west London	8; 5. Camden Town	50	31	19
Great Northern Central	9; 1. Upper Holloway	81	50	31
Mildmay Memorial	9; 4. Highbury	15	6	9
For Incurables	9; 4. Highbury	16	11	5
The Invalid Home	9; 4. Highbury	3	-	3
Invalid Asylum	10; 1. Stoke Newington	1	-	1
Metropolitan Free	10; 3. West Hackney	83	46	37
Jewish Home and Hosp. for Incurables	10; 5. South Hackney	1	1	-
Charing Cross	12; 1. St. Martin-in-the-Fields	173	110	63
King's College	12; 3. St. Clement Danes	183	114	69
London Homœopathic	13; 1. St. George the Martyr	40	18	22
St. John and St. Elizabeth	13; 1. St. George the Martyr	35	-	35
For Children	13; 1. St. George the Martyr	157	88	69
City Police	14; 1. St. Botolph	4	4	-
St. Bartholomew's	14; 3. St. Sepulchre	716	489	227
Convent	15; 1. Shoreditch South	5	-	5
North-Eastern (*Children*)	15; 4. Haggerston	107	59	48
Mildmay Medical Mission	16; 1. Bethnal Green N.	22	13	9
London	17; 3. Whitechapel Church	894	546	348
East London (*Children*)	19; 1. Shadwell	289	151	138
Poplar	21; 2. Bromley	46	36	10
Evelina (*Children*)	22; 4. Borough Road	142	80	62
Guy's	23; 1. St. Olave	532	356	176
Cottage Hospital	23; 5. Rotherhithe	1	1	-
Royal Infirmary (*Women and Children*)	24; 1. Waterloo 1st	47	21	26
St. Thomas's	24; 3. Lambeth Church 1st	555	352	203
Bolingbroke Hospital	25; 2. West Battersea	10	5	5
British Home for Incurables	25; 3. Clapham	6	1	5
Royal Hospital for Incurables	25; 4. Wandsworth	19	7	12
Miller Hospital	27; 3. Greenwich West	13	8	5
Cottage	28; 1. Eltham	5	2	3
St. John's	28; 2. Lee	17	8	9
Home for Sick Children	28; 4. Sydenham	10	2	8
Cottage Hospital	29; 1. Charlton	7	3	4
Convalescent Home	29; 5. Plumstead East	1	1	-
HOSPITALS FOR SPECIAL DISEASES.				
Lock Hospital	1*a*; 1. St. Mary Paddington	3	-	3
Consumption & Diseases of Chest	1*b*; 2. Brompton	174	89	85
	3; 2. Chelsea North	75	54	21
Cancer	3; 2. Chelsea North	115	33	82
For Women	3; 2. Chelsea North	13	-	13
Gordon Hosp. for Fistula	4; 2. Belgrave	2	2	-
Diseases of Women and Children (Grosvenor)	4; 3. St. John Westminst.	3	-	3
Diseases of Throat	5; 1. S. James Westm.	4	3	1
For Women	5; 2. St. Anne Soho	18	-	18
Heart diseases	5; 2. St. Anne Soho	5	1	4
Lock Hospital	5; 2. St. Anne Soho	1	1	-
London Throat	6; 1. All Souls	2	1	1
St. Agnes (*Consumption*)	6; 1. All Souls Maryleb.	3	-	3
Epilepsy, &c.	6; 6. St. John (Maryleb.)	3	1	2

PUBLIC INSTITUTIONS.	SUB-DISTRICTS.	DEATHS. Total.	Males.	Females.
HOSPITALS FOR SPECIAL DISEASES—*continued.*				
North London (*Consumption*)	7; 1. Hampstead	25	17	8
St. Saviour's (*Cancer*)	8; 1. Regent's Park	1	-	1
Central London Throat and Ear	8; 3. Gray's Inn Lane	9	5	4
Hospital for Women †	8; 4. Somers Town	4	-	4
Small-pox	9; 1. Upper Holloway	1	1	-
London Fever	9; 2. Islington South-west	20	10	10
Royal Westminster Ophthalmic	12; 1. St. Martin-in-the-Fields	1	1	-
St. Peter's (*Stone, &c.*)	12; 2. St. Mary-le-Strand	11	10	1
National for Paralysed and Epileptic	13; 1. St. George the Martyr	30	20	10
Alexandra (*Hip Diseases*)	13; 1. St. George the Martyr	1	1	-
St. Mark's (*Fistula*)	13; 8. Old Street	5	4	1
Royal for Dis. of Chest	13; 9. City Road	54	36	18
Royal London Ophthalmic	14; 6. Broad Street	2	1	1
City of London for Diseases of the Chest	16; 3. Bethnal Green East	89	60	29
LYING-IN HOSPITALS.				
St. John the Divine	3; 2. Chelsea Women	-	-	-
	3; 2. Chelsea North Children	3	1	2
Queen Charlotte's	6; 4. St. Mary (Marylebone) Women	3	-	3
	6; 4. St. Mary (Marylebone) Children	27	20	7
British	11; 2. St. Giles South Women	1	-	1
	11; 2. St. Giles South Children	3	1	2
City of London	13; 9. City Road Women	1	-	1
	13; 9. City Road Children	13	9	4
Mothers' Lying-in Home	20; 1. Mile End O.T. W. Women	-	-	-
	20; 1. Mile End O.T. W. Children	2	2	-
General (York Road)	24; 2. Waterloo 2nd Women	1	-	1
	24; 2. Waterloo 2nd Children	13	8	5
Clapham Maternity	24; 5. Kennington 1st Women	-	-	-
	24; 5. Kennington 1st Children	6	3	3
MILITARY AND NAVAL HOSPITALS.				
Station Hospitals	4; 3. St. John Westminster	20	19	1
Seamen's	27; 4. Greenwich East	127	124	3
Herbert	29; 1. Charlton	30	30	-
Garrison Female	29; 3. Woolwich Arsenal	4	2	2
Arsenal Infirmary	29; 3. Woolwich Arsenal	1	1	-
HOSPITALS FOR FOREIGNERS.				
German	10; 4. Hackney	137	94	43
French ‡	11; 3. St. Giles North	38	22	16
Italian	13; 1. St. George the Martyr	6	4	2
LUNATIC ASYLUMS.*				
St. Luke's Hospital	13; 9. City Road	11	2	9
Hoxton House *	15; 1. Shoreditch S.	71	31	40
Bethnal House *	16; 3. Bethnal Green E.	68	36	32
Grove Hall	21; 1. Bow	56	47	9
Bethlehem Hospital	22; 5. London Road	28	16	12
Middlesex County	25; 4. Wandsworth	47	19	28
Peckham House *	26; 2. Camberwell	47	22	25
Camberwell House *	26; 2. Camberwell	52	19	33
Banstead	30; 1. Carshalton	303	145	158
Caterham	37; 1. Godstone	205	107	98
Cane Hill	38; 1. Croydon	115	66	49
Darenth	42; 2. Dartford	110	69	71
City of London	42; 2. Dartford	20	10	10
Hanwell	125; 3. Hayes	168	107	61
Colney Hatch	128; 3. Finchley	242	150	92
Leavesden	137; 2. Watford	309	185	124

* Lunatic Asylums.—Private Lunatic Asylums are excluded from this list, except those in which *pauper* lunatics are received, which are marked thus *.

† This institution was transferred from Christchurch, Marylebone, during the year.

‡ This institution was transferred from St. Anne Soho, during the year.

TABLE **21.** LONDON.—**Weekly Deaths** from the principal ZYMOTIC DISEASES during the Four Fifty Years

	SMALL-POX.				MEASLES.				SCARLET FEVER.				DIPHTHERIA.			
	1887	1888	1889	1890	1887	1888	1889	1890	1887	1888	1889	1890	1887	1888	1889	1890
YEAR -	9	9	1	4	2894	2401	2314	3291	1447	1209	784	876	961	1301	1588	1417
March Quar.	2	4	-	1	859	238	1106	338	171	415	182	185	196	314	355	337
June „	3	1	-	2	1227	247	667	982	192	235	149	168	193	254	318	278
Sept. „	1	2	-	1	480	428	218	937	420	238	191	227	244	273	467	308
Dec. „	3	2	1	-	328	1488	323	1034	664	321	262	296	328	460	448	494
Week.																
1 - -	-	-	-	-	104	25	143	36	11	37	12	15	9	28	33	32
2 - -	-	1	-	-	97	25	176	24	17	25	17	13	18	16	21	26
3 - -	-	-	-	-	65	14	121	24	16	42	19	22	13	22	38	22
4 - -	-	-	-	-	54	16	83	21	14	29	20	10	22	29	33	22
5 - -	-	-	-	-	48	18	71	11	11	39	11	14	16	29	38	24
6 - -	1	-	-	-	24	15	56	8	15	36	12	19	17	40	24	24
7 - -	-	1	-	-	35	14	43	21	13	30	16	14	15	18	24	39
8 - -	-	-	-	1	52	18	70	14	17	32	14	13	14	30	27	27
9 - -	-	-	-	-	55	15	67	19	9	27	12	14	19	24	25	24
10 - -	-	2	-	-	79	21	76	35	13	29	16	12	13	24	20	19
11 - -	-	-	-	-	84	22	60	35	15	25	16	18	13	22	31	25
12 - -	1	-	-	-	77	18	84	45	14	24	6	11	13	17	23	23
13 - -	-	-	-	-	85	17	56	45	6	40	11	10	14	15	18	30
14 - -	-	-	-	-	62	16	74	35	7	20	15	8	15	16	26	20
15 - -	1	-	-	-	81	12	72	54	11	17	13	12	21	19	36	21
16 - -	1	-	-	-	95	18	70	65	17	21	10	13	14	10	22	17
17 - -	-	1	-	-	102	16	65	61	12	15	9	17	16	22	29	20
18 - -	-	-	-	1	90	14	68	67	19	23	15	15	20	15	21	18
19 - -	-	-	-	-	89	22	60	62	16	19	10	12	9	15	23	25
20 - -	1	-	-	-	98	18	53	70	11	13	7	17	12	29	24	21
21 - -	-	-	-	1	112	23	47	94	22	17	16	15	14	19	21	24
22 - -	-	-	-	-	109	24	31	83	15	19	4	14	15	26	16	25
23 - -	-	-	-	-	114	25	39	91	27	23	12	12	9	22	34	20
24 - -	-	-	-	-	113	21	32	100	8	19	11	11	16	18	26	24
25 - -	-	-	-	-	98	18	23	99	14	10	17	15	19	15	27	19
26 - -	-	-	-	-	64	20	33	101	13	19	10	7	13	28	13	24
27 - -	-	-	-	-	77	23	31	100	25	10	9	13	11	29	38	21
28 - -	1	1	-	-	65	26	30	99	23	18	9	20	16	24	25	22
29 - -	-	1	-	-	48	25	29	104	22	14	12	12	24	15	23	19
30 - -	-	-	-	-	62	40	20	94	20	23	6	13	20	21	44	20
31 - -	-	-	-	-	34	29	25	82	25	18	11	19	7	19	45	36
32 - -	-	-	-	-	34	51	15	95	21	17	16	17	21	25	28	22
33 - -	-	-	-	-	32	33	18	80	23	17	13	27	22	13	36	15
34 - -	-	-	-	-	29	47	9	73	36	21	16	16	24	17	37	20
35 - -	-	-	-	-	30	39	12	60	39	15	17	24	20	23	32	26
36 - -	-	-	-	-	15	26	9	56	53	19	18	18	18	18	30	16
37 - -	-	-	-	-	22	27	10	39	57	24	17	18	20	18	41	18
38 - -	-	-	-	-	11	32	3	33	38	20	25	14	21	24	44	35
39 - -	-	-	-	1	21	30	7	22	38	22	22	16	20	27	44	38
40 - -	-	-	-	-	10	39	9	30	48	24	20	20	25	35	45	28
41 - -	-	-	-	-	14	50	13	38	56	30	15	20	22	26	35	38
42 - -	-	-	-	-	18	80	23	59	58	33	25	20	21	36	41	41
43 - -	1	1	-	-	33	100	17	70	60	25	27	29	31	31	37	23
44 - -	-	1	-	-	30	88	22	95	69	24	20	16	19	32	31	26
45 - -	1	-	1	-	38	109	20	74	62	18	23	23	30	34	23	50
46 - -	-	-	-	-	25	124	33	63	41	31	24	15	25	44	38	29
47 - -	1	-	-	-	27	133	33	76	54	20	17	26	31	41	30	37
48 - -	-	-	-	-	26	141	18	76	54	24	19	27	28	34	33	48
49 - -	-	-	-	-	32	139	41	91	42	30	24	23	27	35	47	41
50 - -	-	-	-	-	17	154	30	92	41	17	12	30	23	39	35	45
51 - -	-	-	-	-	30	184	35	100	39	25	22	14	24	39	27	32
52 - -	-	-	-	-	28	147	29	84	40	20	14	14	22	34	26	31
53 - -	-	-	-	-	-	-	-	86	-	-	-	19	-	-	-	25

Years 1887–1890; and the AVERAGE WEEKLY Numbers from these DISEASES during the 1841–1890.

WHOOPING-COUGH.				FEVER.				DIARRHŒA.				WEEKLY AVERAGE in 50 Years, 1841-90.							
1887	1888	1889	1890	1887	1888	1889	1890	1887	1888	1889	1890	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Fever.	Diarrhœa.	
2928	2987	1749	3276	672	720	596	662	3773	2176	2677	2753	17	34	* 44	* 13	47	35	51	YEAR.
443	1617	452	1227	144	243	114	115	176	151	189	147	21	31	36	12	65	35	13	March Qr.
834	799	541	1051	86	150	103	95	209	240	269	212	21	38	30	11	56	31	19	June „
823	348	300	588	178	134	160	175	3200	1439	1965	1886	13	28	46	12	32	34	147	Sept. „
828	223	456	410	264	193	219	277	188	346	254	508	14	37	64	15	36	40	24	Dec. „
17	120	32	98	17	31	15	12	10	12	11	10	21	43	46	13	56	37	13	Week. 1
32	152	37	112	11	23	11	12	13	11	12	12	21	40	45	12	58	37	14	2
31	138	36	104	14	27	7	15	13	15	11	6	23	35	45	12	62	35	13	3
31	168	24	82	11	14	11	11	22	11	24	15	22	30	40	12	67	35	14	4
40	177	38	67	15	29	11	9	12	15	13	9	23	27	36	13	69	35	14	5
37	153	33	91	9	13	5	2	15	12	18	4	22	24	36	13	69	34	14	6
41	122	31	115	6	18	13	13	14	8	10	8	22	23	33	12	66	35	13	7
35	127	31	103	10	16	9	9	17	8	16	21	21	27	34	11	66	34	14	8
29	94	31	97	5	15	7	8	11	10	18	12	21	26	32	11	64	31	14	9
35	101	29	95	14	20	7	5	12	17	15	9	20	29	31	10	65	34	13	10
42	92	37	86	10	12	6	4	16	10	14	14	19	30	28	11	65	35	13	11
42	80	42	76	12	11	4	7	9	6	18	14	19	32	28	11	67	32	13	12
31	93	51	101	10	14	8	8	12	16	9	13	19	33	29	11	71	35	12	13
35	89	49	84	8	21	9	3	9	17	17	10	21	34	27	11	67	32	12	14
53	108	43	79	8	9	12	5	4	19	11	10	21	35	28	13	68	33	12	15
46	91	51	106	6	14	6	9	12	23	10	11	23	35	30	11	66	33	13	16
59	80	56	88	4	7	4	7	19	17	18	18	22	37	27	12	62	32	13	17
73	87	55	86	5	12	7	7	12	19	12	21	23	37	30	10	60	32	13	18
59	52	37	99	4	10	9	3	8	14	10	11	21	37	30	11	60	30	12	19
66	64	36	88	4	12	8	10	12	15	14	17	23	38	29	11	57	31	14	20
73	64	48	91	5	13	6	6	10	9	13	10	23	39	32	10	56	31	14	21
75	37	49	78	6	9	9	4	12	19	14	10	21	41	33	11	52	31	16	22
74	33	26	75	9	9	7	9	9	18	19	8	21	41	34	12	48	31	18	23
66	34	37	59	10	9	10	13	20	16	34	16	21	40	30	11	44	31	24	24
79	33	27	66	7	15	7	7	30	18	40	24	20	40	33	12	43	29	34	25
76	27	27	52	10	10	9	12	52	36	57	51	20	38	33	11	43	30	49	26
86	31	32	57	15	9	8	8	133	51	155	85	17	38	36	11	40	31	82	27
87	32	26	66	8	13	10	10	312	72	258	107	16	35	37	12	40	32	133	28
100	33	29	56	9	8	7	7	483	62	273	111	15	35	38	11	40	31	181	29
92	30	19	62	9	16	9	2	517	89	271	108	15	34	40	12	38	33	219	30
81	25	22	45	11	9	8	12	436	121	199	177	13	33	41	11	34	31	212	31
61	27	19	37	19	7	9	12	412	138	175	176	13	30	43	11	33	32	197	32
50	20	17	39	14	5	8	17	316	162	158	262	12	29	43	11	29	34	184	33
51	28	20	39	13	7	11	11	191	192	109	255	12	26	47	13	29	34	165	34
42	24	21	39	10	11	12	17	132	144	78	180	12	24	47	12	29	35	146	35
50	32	28	46	20	12	23	19	107	131	68	128	11	21	52	12	29	36	126	36
53	31	18	35	17	13	21	19	73	122	68	117	11	19	53	13	27	38	104	37
36	22	26	38	16	11	12	21	45	78	73	94	11	20	54	15	26	39	84	38
34	13	23	29	17	13	22	20	43	77	80	86	10	19	63	14	25	39	71	39
38	5	14	18	15	9	21	25	18	72	52	105	11	22	66	16	26	39	55	40
27	18	14	29	17	14	17	25	24	43	28	94	11	24	68	15	25	39	46	41
36	12	26	30	18	20	14	23	11	42	22	75	10	27	69	16	27	41	37	42
44	18	22	28	17	19	23	16	16	30	15	55	11	28	71	14	27	42	29	43
44	19	21	19	26	22	19	26	20	34	17	43	11	33	71	13	29	42	24	44
33	15	24	20	18	14	11	29	12	18	17	26	13	36	68	15	29	40	20	45
54	17	37	25	25	15	21	25	11	16	16	19	14	38	68	16	34	41	19	46
75	19	31	33	18	17	24	23	18	18	17	11	14	42	67	17	36	41	16	47
67	20	44	15	24	12	16	14	14	13	12	16	15	46	65	15	38	41	15	48
70	13	47	28	31	13	10	17	12	19	12	4	16	46	59	16	42	41	15	49
106	14	49	27	20	18	15	13	12	11	14	12	17	47	59	15	46	41	14	50
104	25	60	53	16	12	13	16	8	16	13	13	17	50	52	15	49	38	13	51
130	28	67	43	19	8	15	11	12	14	19	15	18	47	49	15	54	36	13	52
–	–	–	42	–	–	–	14	–	–	–	20	–	–	–	–	–	–	–	53

* The weekly averages for scarlet fever and diphtheria relate to the 30 years 1861-90.

TABLE 22.—**Births** and **Deaths** Registered in **London**, and **Meteorology** at **Greenwich**, in each Week of 1890.

No. of Week.	Week ending	Births. Total.	Males.	Femls.	Deaths. Total.	Males.	Femls.	Mean Temperature of the Air.	Mean of the Highest Readings of the Thermometer.	Mean of the Lowest Readings of the Thermometer.	Degree of Humidity (complete saturation = 100).	Fall of Rain in Inches.	Mean Hourly Amount of Horizontal Movement of the Air in each Week.	Sun above Horizon in Hours.	Registered Sunshine in Hours.
	1890.							°	°	°			Miles.		
1	Jan. 4	2961	1516	1445	2371	1202	1169	32·8	36·7	28·5	97	0·11	5·9	55·0	5·0
2	„ 11	2818	1484	1334	2747	1436	1311	47·6	52·4	43·0	89	0·40	18·8	56·2	10·1
3	„ 18	2714	1409	1305	2720	1420	1300	45·5	50·6	39·4	86	0·13	15·9	57·9	7·3
4	„ 25	2510	1313	1197	2227	1192	1035	42·7	48·4	36·9	84	0·77	21·2	60·0	14·9
5	Feb. 1	2699	1355	1344	1849	965	884	42·9	48·3	38·2	90	0·73	?	62·5	8·9
6	„ 8	2707	1373	1334	1749	886	863	37·1	42·7	32·0	89	0·05	8·6	65·3	9·5
7	„ 15	2793	1461	1332	1809	904	905	35·9	41·7	30·8	87	0·88	10·0	68·3	31·2
8	„ 22	2702	1323	1379	1847	934	913	39·4	43·9	35·9	89	0·04	10·0	71·4	12·4
9	March 1	2561	1265	1296	1802	888	914	35·4	42·0	30·4	87	0·22	12·5	74·6	9·7
10	„ 8	2536	1325	1211	1889	978	911	36·4	43·6	29·0	69	0·33	17·9	77·8	12·1
11	„ 15	2717	1381	1336	1771	907	864	45·3	54·0	37·6	79	0·24	14·0	81·0	28·1
12	„ 22	2534	1283	1251	1637	850	787	43·3	52·0	36·0	82	0·81	11·9	84·2	21·5
13	„ 29	2543	1332	1211	1571	810	761	49·0	57·3	42·6	84	0·41	13·7	87·5	14·6
14	April 5	2329	1204	1125	1419	720	699	43·8	54·9	33·1	72	0·00	8·9	90·8	59·8
15	„ 12	2360	1154	1206	1619	842	777	43·2	52·0	37·0	72	0·29	12·4	94·0	22·0
16	„ 19	2735	1358	1377	1611	816	795	46·1	53·8	39·9	81	0·38	14·9	97·1	27·0
17	„ 26	2538	1288	1250	1567	826	741	47·1	56·7	40·1	82	1·00	12·2	100·1	15·9
18	May 3	2613	1373	1240	1533	811	722	50·7	62·2	38·9	67	0·07	8·5	103·0	63·9
19	„ 10	2308	1163	1145	1469	781	688	52·4	61·6	44·6	80	0·56	7·9	105·8	14·2
20	„ 17	2468	1283	1185	1466	762	704	55·3	67·4	45·6	69	0·56	11·6	108·3	54·0
21	„ 24	2443	1265	1178	1451	742	709	58·3	71·0	45·6	65	0·14	10·2	110·8	71·2
22	„ 31	2091	1054	1037	1411	770	641	54·0	65·9	44·0	65	0·07	13·1	112·7	51·9
23	June 7	2399	1231	1168	1393	733	660	56·5	67·0	48·1	76	0·31	13·0	114·3	25·1
24	„ 14	2477	1298	1179	1375	721	654	56·6	67·9	48·1	81	0·76	8·7	115·3	28·4
25	„ 21	2516	1295	1221	1387	718	669	59·3	70·9	49·8	76	0·38	10·1	116·0	29·3
26	„ 28	2359	1196	1163	1346	666	680	60·6	71·5	52·5	82	0·78	9·7	115·9	36·2
27	July 5	2480	1300	1180	1481	792	689	55·7	66·6	48·6	84	1·77	10·7	115·2	23·5
28	„ 12	2472	1281	1191	1471	747	724	55·7	65·2	48·4	83	0·86	10·7	114·0	17·9
29	„ 19	2346	1230	1116	1522	805	717	61·4	72·1	54·3	81	2·08	11·2	112·5	21·7
30	„ 26	2512	1283	1229	1418	754	664	61·6	73·9	52·6	75	0·08	11·7	110·5	44·6
31	August 2	2557	1338	1219	1683	881	802	62·9	74·4	53·9	77	0·11	12·5	108·2	31·9
32	„ 9	2175	1098	1077	1594	833	761	62·6	73·8	53·2	77	0·00	5·7	105·5	30·5
33	„ 16	2527	1239	1288	1751	954	797	61·1	73·2	54·6	82	0·78	13·3	102·8	32·6
34	„ 23	2487	1266	1221	1629	794	835	59·0	69·0	51·8	81	1·00	11·6	99·8	31·9
35	„ 30	2614	1274	1340	1659	883	776	54·4	66·5	46·0	80	0·67	10·2	96·8	36·5
36	Sept. 6	2469	1268	1201	1514	772	742	58·4	71·0	48·4	83	0·00	7·5	93·6	26·8
37	„ 13	2539	1258	1281	1410	736	674	59·4	73·2	48·2	79	0·00	5·6	90·4	48·6
38	„ 20	2355	1161	1194	1375	704	671	60·4	71·7	51·0	74	0·34	7·9	87·4	50·7
39	„ 27	2458	1237	1221	1458	790	668	58·8	69·2	50·9	83	0·31	10·5	84·1	24·9
40	October 4	2433	1290	1143	1413	757	656	56·7	66·3	49·3	76	0·00	15·9	80·9	36·9
41	„ 11	2409	1190	1219	1472	785	687	54·3	64·1	45·5	82	0·33	9·7	77·7	36·5
42	„ 18	2412	1253	1159	1741	892	849	47·7	56·5	39·8	82	0·20	12·9	74·7	16·0
43	„ 25	2512	1252	1260	1649	850	799	48·2	54·4	43·2	83	0·45	9·0	71·5	8·8
44	Nov. 1	2295	1155	1140	1817	909	908	43·6	50·4	36·3	85	0·23	12·6	68·5	12·6
45	„ 8	2173	1110	1063	1734	881	853	45·2	51·7	39·0	82	0·77	16·4	65·5	16·4
46	„ 15	2321	1151	1170	1709	874	835	44·5	52·4	37·3	88	0·28	9·4	62·8	16·2
47	„ 22	2206	1059	1147	1716	827	889	50·0	54·0	45·1	90	0·19	12·0	60·4	3·1
48	„ 29	1980	1009	971	1527	767	760	34·3	39·8	28·9	82	0·18	15·9	58·0	0·8
49	Dec. 6	2240	1144	1096	1733	901	832	35·3	39·0	30·4	87	0·09	9·0	56·3	2·8
50	„ 13	2293	1144	1149	1787	910	877	30·6	33·7	27·1	91	0·00	4·4	55·0	1·0
51	„ 20	2202	1142	1060	2206	1059	1147	26·9	30·6	22·1	90	0·63	7·3	54·2	0·0
52	„ 27	1771	873	898	2231	1069	1162	28·1	32·0	22·2	90	0·03	5·3	54·1	0·0
53	Jan. 3	3021	1496	1525	2516	1231	1285	28·6	32·2	24·1	90	0·07	9·9	54·9	0·9

NOTE.—The deaths in Metropolitan Lunatic and Imbecile Asylums situated outside Registration London are included in the figures from the 31st week onwards.

TABLE 23.—**Greenwich Meteorological Elements** for the Year 1890. By J. GLAISHER, Esq., F.R.S.

1890. Months.	Mean Reading of the Barometer.	Temperature of the Air. Highest by Day.	Lowest by Night.	Range in Month.	Mean of all Highest.	Mean of all Lowest.	Mean Daily Range.	Mean for the Month.	Departure from Average of 119 Years, 1771-1889.	Mean Temperature of the Dew Point.	Mean Elastic Force of Vapour.	Weight of Vapour in a Cubic Foot of Air.	Mean additional Weight required for Saturation.	Mean Degree of Humidity. Saturation = 100.	Mean Weight of a Cubic Foot of Air.	Relative Proportion of Wind. N.	E.	S.	W.	Mean Amount of Cloud.	Rain. Number of Days it fell.	Amount collected.
	in.	°	°	°	°	°	°	°	°	°	in.	grs.	grs.		grs.							in.
January-	29·760	55·0	26·5	28·5	48·5	38·2	10·3	43·4	+6·8	39·0	·246	2·8	0·4	88	548	5	3	13	10	7·2	19	2·09
February	30·016	50·5	26·6	23·9	43·0	32·9	10·1	37·5	−1·3	34·2	·197	2·3	0·3	88	559	11	11	4	2	6·7	9	1·04
March -	29·665	68·8	13·1	55·7	51·5	35·8	15·7	43·2	+2·1	37·1	·221	2·6	0·6	79	546	6	4	10	11	7·2	14	1·97
April -	29·644	63·4	31·1	32·3	55·0	37·8	17·2	45·6	−0·5	38·1	·230	2·7	0·8	76	543	11	8	5	6	6·5	14	1·77
May -	29·666	77·1	38·5	38·6	66·3	44·4	21·9	54·8	+2·3	44·7	·296	3·3	1·5	69	534	9	10	8	4	5·5	14	1·34
June -	29·824	80·2	36·6	43·6	69·2	49·6	19·6	58·1	−0·2	51·5	·383	4·3	1·1	79	533	5	3	11	11	7·4	16	2·54
July -	29·735	78·1	41·9	36·2	70·4	51·6	18·8	59·5	−2·2	53·1	·404	4·5	1·2	80	529	6	2	9	14	7·5	18	4·50
August -	29·715	82·8	39·1	43·7	70·7	51·2	19·5	59·3	−1·6	52·8	·400	4·5	1·2	79	529	7	5	8	11	6·0	15	2·54
September	29·979	77·7	37·1	40·6	71·2	50·4	20·8	59·5	+3·0	53·2	·406	4·6	1·1	80	534	7	7	9	7	5·3	6	0·65
October -	29·921	63·6	24·7	43·9	55·5	41·3	15·7	49·3	−0·2	43·9	·287	3·3	0·7	82	544	8	3	9	11	5·5	9	1·19
November	29·701	58·2	18·3	39·9	49·3	37·2	12·1	43·2	+0·8	38·9	·237	2·8	0·4	85	547	7	5	10	8	7·1	19	1·48
December	29·851	43·1	13·4	29·7	33·3	25·2	8·1	29·8	−9·3	27·0	·147	1·7	0·2	89	565	10	11	7	3	8·4	9	0·77
Means	29·790	67·0	28·9	38·1	57·2	41·3	15·8	48·6	0·0	42·9	·288	3·3	0·8	81	543	92	72 Sums.	103	98	6·7	162 Sum	21·88 Sum

Table 24.—METEOROLOGICAL TABLE for LONDON, 1890.

(Deduced from Observations, at Greenwich, under the Superintendence of the Astronomer Royal, and compiled from Quarterly Tables, furnished to the Registrar General by James Glaisher, Esq., F.R.S.)

Winter . . Jan., Feb., March. Spring . . April, May, June. Summer . . July, Aug., Sept. Autumn . . Oct., Nov., Dec.	Temperature of Air. Mean.	Temperature of Air. Diff. from Average of 119 Years.	Temperature of Air. Diff. from Average of 49 Years.	Temperature of Evaporation. Mean.	Temperature of Evaporation. Diff. from Average of 49 Years.	Temperature of Dew Point. Mean.	Temperature of Dew Point. Diff. from Average of 49 Years.	Temperature of Air—Daily Range. Mean.	Temperature of Air—Daily Range. Diff. from Average of 49 Years.	Elastic Force of Vapour. Mean.	Elastic Force of Vapour. Diff. from Average of 49 Years.	Weight of Vapour in a Cubic Foot of Air. Mean.	Weight of Vapour in a Cubic Foot of Air. Diff. from Average of 49 Years.	Degree of Humidity. Mean (Sat^{n} =100).	Degree of Humidity. Diff. from Average of 49 Years.	Reading of Barometer. Mean.	Reading of Barometer. Diff. from Average of 49 Years.	Weight of a Cubic Foot of Air. Mean.	Weight of a Cubic Foot of Air. Diff. from Average of 49 Years.	Rain. Amount.	Rain. Diff. from Average of 75 Years.	Reading of Thermometer on Grass. Number of Nights it was At or below 30°.	Between 30° and 40°.	Above 40°.	Lowest Reading at Night.	Highest Reading at Night.
1890.	°	°	°	°	°	°	°	°	°	in.	in.	grs.	gr.			ins.	in.	grs.	grs.	Sums. ins.	Sums. ins.	Sums.			°	°
YEAR .	48·6	0·0	−0·7	45·8	−0·6	42·9	−0·7	15·8	0·0	·238	−·006	3·3	−0·2	81	−1	29·790	+·017	543	+1	21·88	−2·99	95	137	133	8·6	55·5
Winter Quarter .	41·4	+2·5	+1·6	39·7	+1·8	37·1	+1·8	12·0	+0·3	·221	+·015	2·6	+0·1	85	+1	29·814	+·045	551	−1	5·10	+0·13	36	47	7	8·6	44·8
Spring do. .	52·8	+0·5	0·0	48·8	−0·3	44·8	−0·6	19·6	−0·3	·303	−·004	3·4	−0·1	75	−3	29·711	−·069	537	−2	5·65	+0·14	19	39	33	22·6	50·8
Summer do. .	59·4	−0·3	−0·8	55·8	−0·6	53·0	0·0	19·7	0·0	·403	−·001	4·5	−0·1	80	+2	29·816	+·016	531	+1	7·69	+0·39	0	11	81	31·5	55·5
Autumn do. .	40·8	−2·9	−3·6	39·0	−3·5	36·6	−4·0	11·8	+0·2	·224	−·034	2·6	−0·6	85	−4	29·824	+·076	552	+5	3·44	−3·65	40	40	12	13·4	49·8

In this Table + and − respectively signify that the number in the *preceding* column are *above* or *below* the average to the amount of the quantities to which these signs are affixed.

TABLE 25.—**Houses, &c.** supplied, and **Average Daily Quantity of Water** DELIVERED, by the **London Water Companies** in each MONTH of the Year 1890.

COMPANIES.	NUMBER OF HOUSES, &c. SUPPLIED IN											
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
Total Houses supplied -	758,626	759,259	760,316	761,186	762,057	762,792	764,832	765,577	766,797	767,937	768,586	769,093
FROM THAMES - - - - -	365,776	366,070	366,696	367,164	367,610	368,205	368,572	368,934	369,720	370,248	370,607	370,879
FROM LEA AND FROM OTHER SOURCES -	392,850	393,189	393,620	394,022	394,447	394,587	396,260	396,643	397,077	397,689	397,979	398,214
FROM THAMES.												
CHELSEA - - - - - -	35,226	35,267	35,311	35,343	35,370	35,415	35,510	35,557	35,610	35,663	35,684	35,690
WEST MIDDLESEX - - -	72,562	72,573	72,818	72,933	73,042	73,217	73,243	73,318	73,618	73,759	73,794	73,877
SOUTHWARK AND VAUXHALL - -	111,794	111,865	111,958	112,032	112,134	112,240	112,227	112,291	112,508	112,655	112,731	112,793
GRAND JUNCTION - - -	55,905	55,949	56,026	56,090	56,142	56,213	56,311	56,353	56,403	56,428	56,512	56,572
LAMBETH - - - - -	90,289	90,416	90,583	90,766	90,922	91,120	91,281	91,415	91,581	91,743	91,886	91,947
FROM LEA AND FROM OTHER SOURCES.												
NEW RIVER - - - - -	153,138	153,199	153,202	153,283	153,288	153,323	153,475	153,579	153,661	153,843	153,876	153,992
EAST LONDON - - - - -	166,369	166,519	166,813	167,038	167,283	167,283	168,579	168,794	169,082	169,283	169,414	169,414
KENT - - - - - -	73,343	73,471	73,605	73,701	73,876	73,981	74,206	74,270	74,334	74,563	74,689	74,808

COMPANIES.	AVERAGE DAILY SUPPLY OF WATER IN GALLONS DURING THE MONTHS OF											
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
Total Quantities supplied -	161,955,888	159,851,698	164 906,829	165,831,363	179,880,869	185,376,080	185,949,769	185,011 729	184,412,177	177,723,730	171,127,721	181,980,410
FROM THAMES - - - - -	82,666,662	79,095,922	81,504,139	83,020,393	90,013,013	92,923,757	94,514,149	93,429,690	92,932,225	89,591,025	86,704,054	88,928,583
FROM LEA AND FROM OTHER SOURCES -	79,289,226	80,755,776	83,402,690	82,810,970	89,867,856	92,452,323	91,435,620	91,582,039	91,479,952	88,132,705	84,423,667	93,051,827
FROM THAMES.												
CHELSEA - - - - - -	9,171,764	9,244,460	9,336,947	9,785,958	10,158,615	11,207,712	11,283,926	10,392,265	10,020,275	9,788,710	9,580,971	9,361,648
WEST MIDDLESEX - - - -	14,750,282	14,983,912	15,365,052	15,316,205	16,570,909	17,340,328	17,099,169	16,810,860	16,682,204	15,435,778	15,994,825	16,005,746
SOUTHWARK AND VAUXHALL - -	23,389,536	21,750,954	22,944,357	23,237,379	24,758,404	25,968,032	25,907,946	26,624,354	26,673,140	26,051,188	25,214,602	26,183,145
GRAND JUNCTION - - - -	16,658,380	16,457,596	17,007,783	17,330,851	19,720,185	19,899,785	20,284,226	19,703,565	19,248,481	18,704,649	17,524,188	18,066,180
LAMBETH - - - - -	18,696,700	16,659,000	16,850,000	17,350,000	18,804,900	18,507,900	19,938,882	19,898,646	20,299,125	19,610,700	18,389,468	19,311,864
FROM LEA AND FROM OTHER SOURCES.												
NEW RIVER - - - - - -	28,451,000	30,070,000	29,592,000	30,273,000	33,675,000	35,400,000	34,734,000	34,710,000	34,749,000	33,352,000	31,563,500	33,584,600
EAST LONDON - - - - -	39,451,437	39,332,924	41,944,774	40,781,463	43,283,780	44,222,912	43,946,249	43,969,041	43,602,759	42,267,485	40,797,802	46,253,698
KENT - - - - - -	11,386,789	11,352,852	11,865,916	11,756,507	12,909,076	12,829,411	12,755,371	12,902,998	13,128,193	12,513,220	12,062,365	13,213.529

Note.—The quantities of water in the above Table include the supply for various purposes other than for domestic consumption.

TABLE **26.—Houses, &c.** supplied, and **Average Daily Quantity of Water** DELIVERED for ALL PURPOSES and for DOMESTIC PURPOSES, by the **London Water Companies** during 1890.

WATER COMPANIES.	AVERAGE NUMBER of HOUSES supplied during the Year.	AVERAGE DAILY SUPPLY OF WATER DURING THE YEAR.				
		Delivered.		Used for Domestic purposes.†		
		Gallons.	Cubic Metres.*	Gallons.	Gallons per House.	
					1889.	1890.
Total	763,922	175,334,022	796,623	143,773,898	183	188
FROM THAMES	368,374	87,943,634	399,568	72,113,780	190	196
FROM LEA AND FROM OTHER SOURCES	395,548	87,390,388	397,055	71,660,118	177	181
FROM THAMES.						
CHELSEA	35,471	9,945,187	45,186	8,155,053	222	230
WEST MIDDLESEX	73,230	16,029,606	72,830	13,144,277	175	179
SOUTHWARK AND VAUXHALL	112,269	24,891,920	113,095	20,411,375	174	182
GRAND JUNCTION	56,242	18,383,822	83,526	15,074,734	256	268
LAMBETH	91,162	18,693,099	84,931	15,328,341	167	168
FROM LEA AND FROM OTHER SOURCES.						
NEW RIVER	153,488	32,512,842	147,721	26,660,530	167	174
EAST LONDON	167,989	42,487,860	193,042	34,840,045	203	207
KENT	74,071	12,389,686	56,292	10,159,543	136	137
Columns	1.	2.	3.	4.	5.	6.

* A cubic metre is equal in volume to 35·3 cubic feet, or to 220·09668 imperial gallons. It is nearly equivalent to the old English *tun* of four hogsheads, holding 35·248 cubic feet. It is in general use on the Continent; and its volume of water weighs a metric *ton*, differing inconsiderably in weight from the *ton* in common use. It is equal to 100 decalitres: thus a decalitre equals 2·2009668 gallons.

† According to returns of the London Water Companies made to the Select Committee on East London Water Bills (Session 1867), it is estimated that during the year 1866 about 82 per cent. of the total supply of water for all purposes was for domestic use; this proportion has been applied in estimating the quantities in columns 4, 5, and 6, showing the gallons probably used for domestic purposes. The average daily quantity of water supplied by the London Companies during the year 1890 was 175,334,022 gallons (796,623 cubic metres, equal to about as many *tuns* by measure, *tons* by weight), of which about 143,773,898 gallons (653,231 cubic metres) were probably used for domestic purposes. The average quantity used daily for domestic purposes in each house (see Col. 6) is equal to 85·4 decalitres, and, assuming 7·8 persons to each house, corresponds to 24·1 gallons (10·9 decalitres) to each person. The Returns of the Water Companies include uninhabited houses.

REPORT on the ANALYSES of the WATERS supplied by the METROPOLITAN WATER COMPANIES during the several MONTHS of the YEAR 1890. By Professor FRANKLAND, D.C.L., LL.D., F.R.S., &c.

Water-analysis Laboratory, The Yews, Reigate,
27th January 1891.

SIR,

I HAVE now to report to you the results of monthly analyses and examinations of the water supplied by the eight Metropolitan Water Companies, the Colne Valley Water Company, and the Tottenham Local Board of Health, during the year 1890.

The weather during the past year has, on the whole, been less favourable for the operations of those Companies which abstract water from rivers, than that prevailing in the previous year, nevertheless the improved quality of this water, upon which I commented in my last report, has been fully maintained.

All the samples examined were taken directly from the mains of the several Companies at places recommended by their respective engineers. In addition to the chemical analysis to which each sample has been submitted, the temperature of the water, as it issued from the main at the time of its collection, has been determined, and the appearance which it exhibited on being viewed in a two-foot tube has been recorded. The temperatures and the results of the chemical analyses are contained in the accompanying Tables A. to L.

Table A. gives the temperatures of the waters at the time of their collection. From this Table it will be seen that, although the average temperature differs but little for the several supplies, the monthly variation in the case of the river waters is very great, whilst the temperature of the deep-well water is practically constant throughout the year. Thus the water, principally derived from the Thames and supplied by the Chelsea, West Middlesex, Southwark, Grand Junction, and Lambeth Companies, varied in temperature from 18°·9 C. (66° Fahr.) in August to 2°·8 C. (37° Fahr.) in December, and the water from the Lea distributed by the New River and East London Companies, fluctuated from 18°·5 C. (65°·3 Fahr.) in August to 3°·5 C. (38°·3 Fahr.) in December. The deep-well water of the Kent Company, on the other hand, was free from these violent fluctuations, and practically maintained a constant temperature throughout the year; it varied only from 13°·4 C. (56°·1 Fahr.) in August to 10°·5 C. (50°·9 Fahr.) in December. This uniformity in temperature of deep-well water is of considerable importance, as the water remains cool and refreshing in summer and is less likely to become frozen in the service-pipes in winter, whilst river water at 66° Fahr. is unpleasantly vapid and at 37° Fahr. is soon cooled to the freezing point.

Table B. gives the total amount of solid matters found in 100,000 parts by weight of the various waters. These solid matters are almost wholly composed of mineral substances, which, in these proportions, in no way diminish the fitness of water for drinking. But the salts of lime and magnesia which constitute the principal part of these mineral ingredients are objectionable, not only because they impart to the water what is known as "hardness," and thus render it unsuitable for washing, but also because they cause incrustations and deposits in steam and kitchen boilers and hot-water pipes. The small proportion of organic material which the solid matter invariably contains, is, on the other hand, of the greatest importance in connexion with the use of the water for drinking purposes. For, although the actual amount of this organic matter is generally quite insignificant, yet it may be of the most objectionable character on account of its origin. Thus the water both of the Thames and the Lea receives, above the points where it is abstracted for the purpose of the metropolitan supply, various contributions of organic matter of animal origin, such as the drainage from manured land, the effluents from sewage works, and even raw sewage itself. This animal matter may, at any time, be accompanied by zymotic poisons dangerous to health, and although the chance of such substances reaching the water consumer are greatly reduced, both by the filtration to which the water is subjected by the Companies and by the care which is exercised in excluding the flood waters from their reservoirs; yet in spite of these protective

measures there is no absolute guarantee that the noxious ingredients, which may at any time be present, are wholly removed. It is gratifying, therefore, that most of the water Companies are endeavouring to substitute, as far as possible, water from subterranean sources for raw river water, whilst the Board of Conservators have almost completely stopped the discharge of untreated town sewage into the Thames.

The saline matters dissolved in the deep-well water from the chalk is considerably greater in amount than those found in the river-water, and inasmuch as this chalk water is sent out in its natural condition by the Kent Company and by the Tottenham Local Board of Health, these supplies contain more solid matter than any of the others. The Colne Valley Company, on the other hand, by treating this chalk water with lime before delivery, so reduced the solid matter that the latter was one-third less than the amount present in the river waters, and was less than one-half of that in the deep-well waters either of the Kent Company or of the Tottenham Local Board of Health.

In Tables C. and D. the amount of organic carbon and organic nitrogen, as determined by combustion with oxide of copper, in each of the waters is recorded. Since these are the only two ingredients of the organic matter which can be accurately determined, these results are the only available evidence of the relative proportions of total organic matter present in the waters. These Tables show that during the greater part of the year the river waters, both from the Thames and the Lea, contained only a very moderate amount of organic matter. The New River Company's water was invariably superior, in this respect, to all the other river-derived supplies, and ranked with the deep-well waters on the average, although it maintained much less uniformity in this respect, the proportion of these organic elements being in January nearly four times as high as in April. The proportion of organic matter in the deep-well waters of the Kent and Colne Valley Companies, and in that of the Tottenham Local Board of Health, was invariably very small.

Taking the mean proportion of organic impurity contained in the Thames water delivered in 1868 as 1,000, I find that in the subsequent years, 1890 included, the following proportions were present :—

Year.	Proportion of Organic Impurity present in Thames Water as delivered in London.	Year.	Proportion of Organic Impurity present in Thames Water as delivered in London.
1868	1,000	1880	1,254
1869	1,016	1881	993
1870	795	1882	1,033
1871	928	1883	850
1872	1,243	1884	723
1873	917	1885	839
1874	933	1886	756
1875	1,030	1887	690
1876	903	1888	722
1877	907	1889	677
1878	1,056	1890	680
1879	1,165		

These figures show that the Thames water distributed during the years 1889 and 1890 was superior to that of any former year as regards comparative freedom from organic impurity.

Of the water chiefly derived from the river Lea, that supplied by the New River Company contained, in every case, less organic matter than that of the East London Company, which was generally, in this respect, somewhat superior to the best of the Thames waters.

Taking, as before, the mean proportion of organic impurity contained in the Thames water delivered in 1868 as 1,000, I find that in the subsequent years 1890 included, the following proportions were present in the Lea water:—

Year.	Proportion of Organic Impurity present in Lea Water as delivered in London.	Year.	Proportion of Organic Impurity present in Lea Water as delivered in London.
1868	484	1880	1,013
1869	618	1881	765
1870	550	1882	711
1871	604	1883	620
1872	819	1884	500
1873	693	1885	603
1874	583	1886	500
1875	751	1887	473
1876	562	1888	506
1877	596	1889	504
1878	747	1890	432
1879	947		

Thus the Lea water delivered during the year 1890 was of much better average quality than that of the Thames, and it contained markedly less organic matter than at any time during the previous twenty-two years.

The organic matter found in the deep-well water supplied to London during the past twenty-three years is of course much less in amount. Referred to the same standard, the figures are as follow:—

Year.	Proportion of Organic Impurity present in Deep-well Water as delivered in London.	Year.	Proportion of Organic Impurity present in Deep-well Water as delivered in London.
1868	254	1880	393
1869	312	1881	405
1870	246	1882	409
1871	150	1883	321
1872	221	1884	264
1873	250	1885	200
1874	287	1886	244
1875	259	1887	249
1876	246	1888	241
1877	243	1889	268
1878	323	1890	252
1879	387		

A comparison of these figures with those referring to the Thames and Lea does not, however, adequately represent the superiority, from the sanitary point of view, of the deep-well water, for it must be borne in mind that the exhaustive filtration which the deep-well water undergoes in passing through a great depth of porous strata is far in excess of what can be effected by the sand filtration, highly valuable as it is, to which the river waters are subjected.

Table E. shows the proportional amount of organic elements (organic carbon and organic nitrogen) in each of the waters, the average amount of these elements contained in the Kent Company's water during the nine years ending December 1876 being taken as unity. This Table shows that the maximum, minimum, and average proportions of organic matter, as measured by this standard, present in the several waters during 1890, were :—

Sources.		Maximum.	Minimum.	Average.
Deep wells	Kent	0·8	0·3	0·5
	Colne Valley	1·9	0·9	1·4
	Tottenham	2·0	0·7	1·2
River Lea	New River	2·7	0·7	1·3
	East London	3·9	1·1	2·3
River Thames	Chelsea	4·5	1·7	2·8
	West Middlesex	4·6	1·7	2·9
	Southwark	4·9	1·7	2·6
	Grand Junction	5·0	1·6	2·8
	Lambeth	4·8	1·6	2·8

Thus, of the deep-well waters, that sent out by the Kent Company contained by far the least proportion of organic matter. Of the river waters, that supplied by the New River Company stood much higher than the others in this respect, whilst the East London Company's water was markedly superior to any of the Thames-derived waters which differed but slightly from each other.

The following Table exhibits the maximum amount of organic matter in the waters supplied from the Thames and Lea during the years 1868 to 1890 inclusive, the average of the samples from each source in the month of greatest impurity being taken for comparison :—

Maximum Amount of Organic Matter.

THAMES.			LEA.		
Year.	Elements of organic matter in parts per 100,000.	Months in which maximum pollution occurred.	Year.	Elements of organic matter in parts per 100,000.	Months in which maximum pollution occurred.
1868	·45	January.	1868	·27	February.
1869	·60	February.	1869	·33	February.
1870	·42	January.	1870	·30	January.
1871	·52	October.	1871	·22	February.
1872	·48	January & December.	1872	·39	December.
1873	·46	January.	1873	·33	January.
1874	·37	March.	1874	·21	March.
1875	·49	November.	1875	·28	November.
1876	·44	December.	1876	·24	March.
1877	·40	January.	1877	·30	January.
1878	·36	December.	1878	·26	June.
1879	·38	February.	1879	·33	July.
1880	·42	October.	1880	·33	February.
1881	·34	February.	1881	·34	February.
1882	·37	November.	1882	·26	December.
1883	·32	January.	1883	·24	December.

THAMES.			LEA.		
Year.	Elements of organic matter in parts per 100,000.	Months in which maximum pollution occurred.	Year.	Elements of organic matter in parts per 100,000.	Months in which maximum pollution occurred.
1884	·27	February.	1884	·20	March.
1885	·35	November.	1885	·28	December.
1886	·30	December.	1886	·21	February.
1887	·34	January.	1887	·31	January.
1888	·35	December.	1888	·29	December.
1889	·31	January.	1889	·21	November.
1890	·27	January.	1890	·19	January.

This Table shows that the maximum amount of organic contamination was never lower than, and only in one year (1884) so low as, during the past year.

The variations in the proportion of organic matter found in the several supplies is exhibited graphically in the accompanying diagrams (A. & B.), in which the maximum and minimum proportions of organic matter annually present in each of the three classes of waters since 1868 are recorded.

Tables F. and G., which record the proportions of ammonia and of nitrogen as nitrates and nitrites in the various waters, require no explanation.

In Table H. is given the amount of combined nitrogen, both mineral and organic, found in each of the waters. The total amount of combined nitrogen is of importance, inasmuch as, after making a small correction for the combined nitrogen present in average rain-water, it forms the whole evidence of the nitrogenous organic matters which have gained access to the water in the past, as well as of those which are still present at the time the analysis is made. In river and surface water generally, this total combined nitrogen undergoes a very appreciable reduction during the warmer months of the year, in consequence of the vegetable life which then abounds in such water. On this account, therefore, the amount of total combined nitrogen found in the river waters during the winter months can alone be regarded as bearing any relationship to the amount of nitrogenous matters which these waters have received.

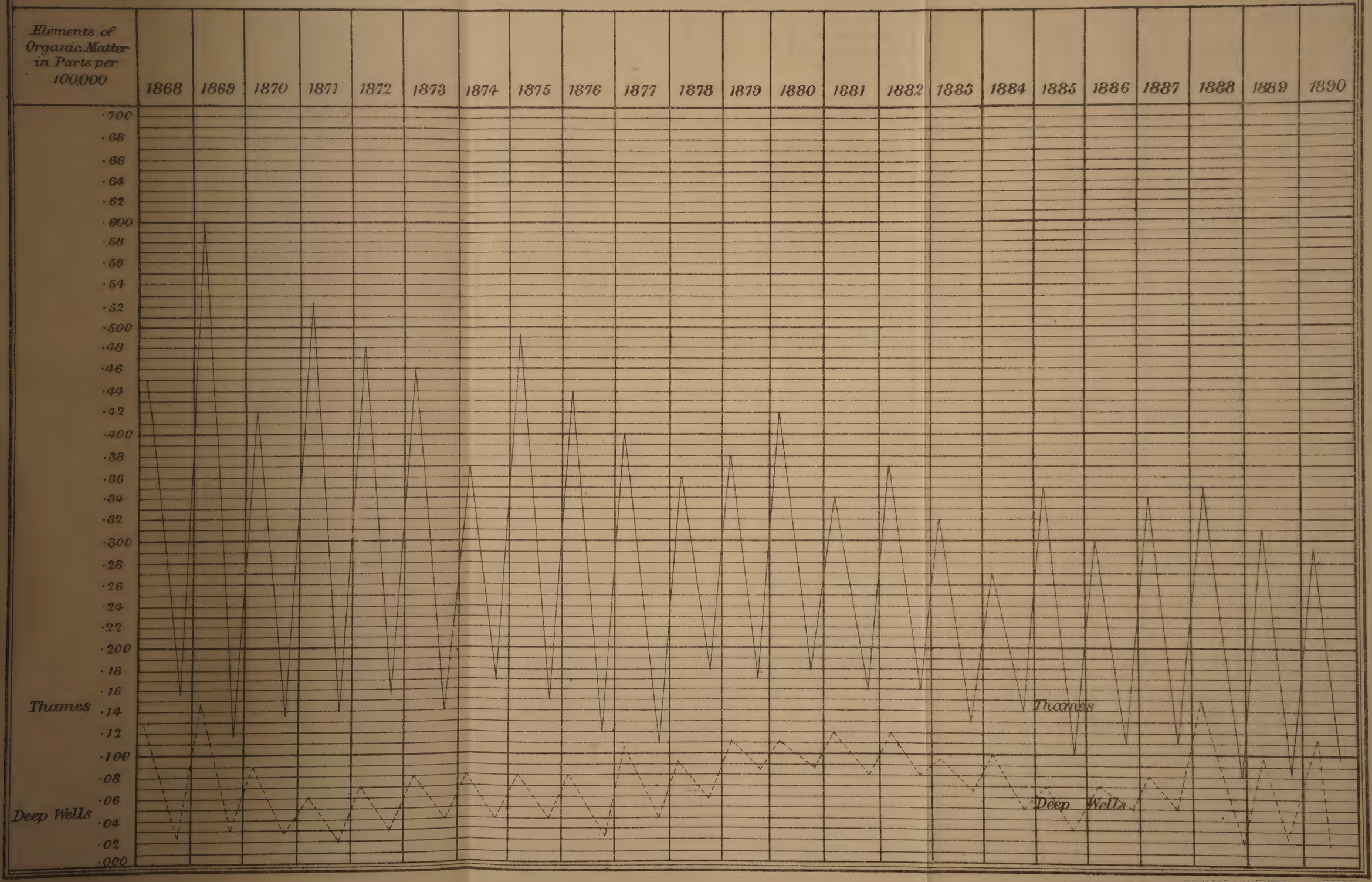
The deep-well waters on the other hand are not subject to the influence of vegetable life, and the amount of total combined nitrogen is, therefore, equally indicative at all times of the year.

Hence, in the following Table, the average proportion of total combined nitrogen in the case of the Thames and Lea is given for the months of January, February, March, October, November, and December only, whilst in the case of the deep-wells it is calculated on the whole year :—

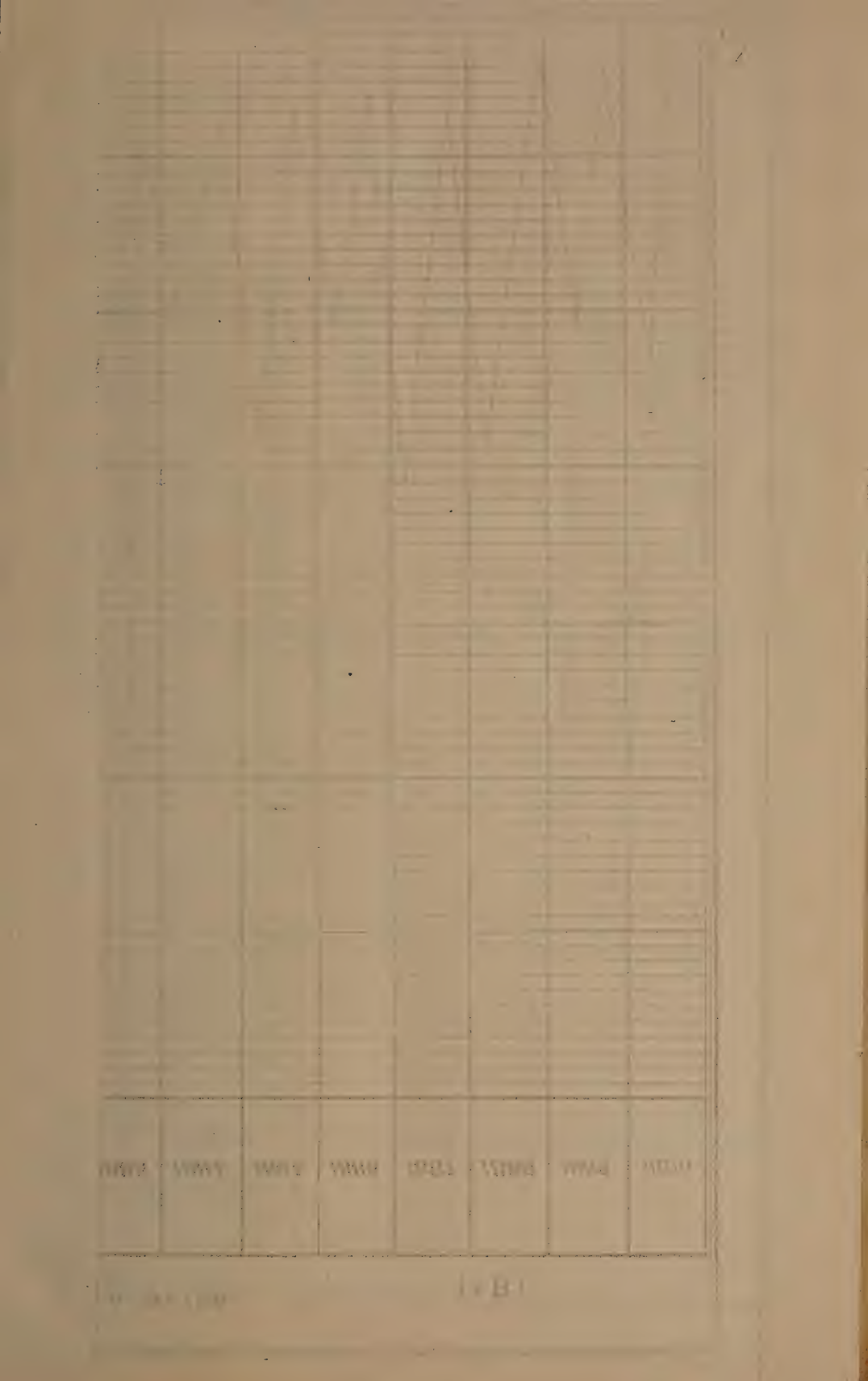
Year.	Thames.	Lea.	Deep-Wells.
1881	·260	·294	·306
1882	·258	·304	·294
1883	·259	·329	·353
1884	·244	·273	·301
1885	·233	·277	·292
1886	·319	·336	·355
1887	·307	·352	·365
1888	·304	·322	·358
1889	·311	·358	·438
1890	·280	·296	·371

Maximum and Minimum Proportion of Organic Matter in Water from Thames and Deep Wells.

(*A)



75, Farringdon Rd & Doctors Commons 2091.3.91



MAXIMUM & MINIMUM PROPORTION OF ORGANIC MATTER IN RIVER LEA WATER.

(*B)

Elements of Organic Matter in Parts per 100,000.	*1868*	*1869*	*1870*	*1871*	*1872*	*1873*	*1874*	*1875*	*1876*	*1877*	*1878*	*1879*	*1880*	*1881*	*1882*	*1883*	*1884*	*1885*	*1886*	*1887*	*1888*	*1889*	*1890*
·700																							
·68																							
·66																							
·64																							
·62																							
·600																							
·58																							
·56																							
·54																							
·52																							
·500																							
·48																							
·46																							
·44																							
·42																							
·400																							
·38																							
·36																							
·34																							
·32																							
·300																							
·28																							
·26																							
·24																							
·22																							
·20																							
·18																							
·16																							
·14																							
·12																							
·100																							
·08																							
·06																							
·04																							
·02																							
·000																							

73 & 75, Farringdon Rd & Doctors' Commons. 2091.3.91

A comparison of these numbers shows that the continuous increase of total combined nitrogen in all three classes of water, upon which I commented in my last annual report, has stopped; and that during the past year there has been a considerable reduction of the amount of this element both in the river and deep-well waters. This reduction may have been caused, at all events in the river waters, by the more efficient exclusion of untreated sewage, but it is more likely to be due to increased rainfall.

Table I. shows the amount of chlorine present in each of the waters, and indicates that on no occasion has brackish or tidal water gained access to the Company's reservoirs. The amount of chlorine in the Thames waters exhibits a slight increase, whilst that in the Lea and deep-well waters is, on the average, exactly the same as last year, the only exception being the Tottenham water, in which the proportion of chlorine has slightly diminished.

Table K. gives the hardness of the various waters. The term "hardness" is used to denote the proportion of carbonate of lime, or its equivalent of other soap-destroying substances, present in 100,000 parts of the water. The variations in hardness for the several descriptions of water during recent years are given in the following Table:—

Year.	Thames.	Lea.	Kent.	Colne Valley.	Tottenham.
1881	19°·8	20°·8	28°·3	6°·2	24°·1
1882	20°·7	21°·1	28°·5	5°·5	25°·4
1883	19°·9	20°·6	28°·0	7°·1	22°·5
1884	19°·4	20°·1	28°·6	5°·2	
1885	18°·7	20°·0	27°·9	4°·8	20°·4
1886	19°·2	20°·3	29°·4	4°·5	21°·3
1887	19°·3	20°·8	29°·9	5°·7	20°·5
1888	20°·0	22°·0	30°·2	7°·5	22°·5
1889	20°·2	22°·1	29°·9	7°·0	24°·6
1890	20°·4	22°·0	29°·7	7°·9	23 ·8

None of the waters supplied to the Metropolis are of such excessive hardness as to influence their fitness for drinking; but, with the exception of that supplied by the Colne Valley Company, the hardness is sufficiently great to materially diminish the value of the waters for washing, steam, and industrial purposes generally. The hardness of the metropolitan water supply is almost entirely due to the presence of bi-carbonate of lime in solution; this bi-carbonate of lime can be readily removed by treating the water with lime, as is so successfully done by the Colne Valley Company. Thus the water pumped from the chalk by the Colne Valley Company is initially of about the same degree of hardness as the Kent Company's supply, but, by treatment with lime before delivery, its hardness is reduced to from one-fourth to one-fifth of its original amount. The hardness of the river water-supplies is similarly reducible. This mode of softening is by far the most economical, for it entails only about one-eightieth of the expense which devolves upon the private consumer in the shape of additional soap required for washing.

Lastly, Table L. records the averages, for the past year, of each determination referred to above, and thus gives a general survey of the thermal and chemical characters of the water delivered by each Company during the past year.

In the following Table are recorded the results of my observations respecting the freedom from turbidity or otherwise of the various waters, and for the purpose of comparison, the results of my first observations in 1868 are also included :—

Companies or Local Authorities.	Number of occasions when clear and transparent.		Number of occasions when slightly turbid.		Number of occasions when turbid.		Number of occasions when very turbid.	
Thames.	1868.	1890.	1868.	1890.	1868.	1890.	1868.	1890.
Chelsea	7	12	2	0	1	0	2	0
West Middlesex	12	12	0	0	0	0	0	0
Southwark	1	12	5	0	4	0	2	0
Grand Junction	9	12	2	0	1	0	0	0
Lambeth	6	12	1	0	2	0	3	0
Lea.								
New River	10	12	2	0	0	0	0	0
East London	3	12	8	0	1	0	0	0
Deep Wells.								
Kent	8	12	3	0	1	0	0	0
Colne Valley	–	12	–	0	–	0	–	0
Tottenham Local Board of Health	–	10	–	2	–	0	–	0

This Table strikingly shows the enormous improvement which the Water Companies have effected in filtration since I first began these examinations for turbidity in 1868. In that year seven samples were so turbid as to be highly repulsive in appearance, nine samples were turbid, and no less than 20 slightly turbid, whereas during the year just closed every sample collected was perfectly clear and transparent. The deep-well waters do not require filtration. All the samples were clear and transparent, except two collected from the mains of the Tottenham Local Board of Health, which were slightly turbid owing to suspended particles of rust of iron.

I am, &c.

E. Frankland.

The Registrar General, &c., &c.
Somerset House, W.C.

Table A.

Temperature (in Centigrade degrees) of the Metropolitan Waters, as delivered from the different Companies' Mains.

	Companies or Local Authorities.	1890. Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Mean.
		°	°	°	°	°	°	°	°	°	°	°	°	°
Inner Circle.	Thames.													
	Chelsea	7·5	5·7	5·0	9·3	12·3	16·7	17·1	18·3	17·2	14·0	10·0	4·8	11·5
	West Middlesex	8·9	5·7	6·2	10·0	14·0	14·6	14·8	16·7	18·2	14·5	11·0	4·0	11·6
	Southwark	8·1	5·7	5·9	9·6	13·4	17·0	17·5	17·4	17·2	13·8	10·6	3·0	11·6
	Grand Junction	8·1	4·8	5·4	9·3	13·2	18·0	17·5	18·5	17·5	13·0	10·2	2·8	11·5
	Lambeth	7·8	5·6	5·8	9·3	12·6	17·7	17·8	18·9	17·7	13·9	9·9	3·0	11·7
	Lea.													
	New River	7·8	5·4	5·6	9·2	13·0	17·0	17·0	17·9	17·6	13·3	10·4	4·5	11·6
	East London	8·0	5·0	5·2	9·5	13·5	17·5	17·4	18·5	17·5	13·4	10·3	3·5	11·6
	Deep Wells.													
	Kent	12·0	11·7	11·9	12·0	12·1	12·7	12·6	13·4	12·8	12·4	12·0	10·5	12·2
Outer Circle.	Colne Valley	—	—	—	—	—	—	—	—	—	—	—	—	—
	Tottenham Local Board	—	—	—	—	—	—	—	—	—	—	—	—	—

Table B.

Weight of Solid Matters in 100,000 parts of the Waters.

	Companies or Local Authorities.	1890. Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Mean.
Inner Circle.	Thames.													
	Chelsea	32·84	32·50	31·38	28·10	25·24	24·90	25·18	23·02	24·06	24·50	26·96	29·22	27·33
	West Middlesex	33·16	32·50	31·64	27·14	25·84	24·78	27·20	25·60	25·46	25·74	28·08	31·42	28·21
	Southwark	33·96	33·80	31·40	27·90	26·84	25·64	25·96	28·80	26·16	27·50	28·82	31·40	29·02
	Grand Junction	34·16	33·70	31·34	27·68	27·00	24·96	24·92	28·36	25·72	27·48	29·20	31·96	28·87
	Lambeth	33·64	33·80	32·00	27·96	27·04	25·56	24·56	27·14	25·80	26·88	28·84	32·08	28·78
	Lea.													
	New River	32·70	32·14	30·90	27·78	27·64	28·70	27·46	29·96	28·92	28·00	30·64	32·40	29·77
	East London	39·40	38·24	33·40	32·06	27·94	27·50	25·72	28·68	25·24	28·42	32·66	36·66	31·33
	Deep Wells.													
	Kent	37·44	42·62	42·64	45·22	43·70	43·04	41·38	42·36	42·96	42·20	40·72	33·84	41·51
Outer Circle.	Colne Valley	18·36	21·44	19·24	21·30	19·84	17·52	19·10	17·66	17·20	18·90	17·28	15·20	18·59
	Tottenham Local Board	40·20	54·00	47·00	41·04	40·66	41·72	41·36	40·60	40·76	41·14	40·62	43·20	42·69

Table C.

Organic Carbon in 100,000 parts of the Waters.

	Companies or Local Authorities.	1890. Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Mean.
Inner Circle.	Thames.													
	Chelsea	·211	·159	·163	·106	·154	·089	·105	·175	·086	·077	·139	·162	·135
	West Middlesex	·236	·252	·131	·119	·100	·100	·087	·224	·095	·081	·129	·178	·144
	Southwark	·244	·152	·110	·115	·120	·098	·080	·149	·101	·082	·160	·118	·127
	Grand Junction	·247	·201	·101	·097	·094	·087	·096	·225	·091	·082	·131	·174	·135
	Lambeth	·220	·169	·128	·087	·117	·123	·116	·250	·083	·072	·159	·143	·139
	Lea.													
	New River	·129	·123	·060	·030	·027	·032	·030	·039	·048	·044	·067	·059	·057
	East London	·200	·186	·139	·116	·048	·064	·065	·105	·078	·072	·117	·153	·112
	Deep Wells.													
	Kent	·023	·018	·019	·025	·025	·014	·017	·024	·016	·034	·038	·027	·023
Outer Circle.	Colne Valley	·073	·093	·070	·075	·070	·062	·055	·070	·049	·038	·086	·069	·067
	Tottenham Local Board	·049	·097	·083	·041	·048	·053	·059	·030	·038	·042	·031	·061	·053

Table D.

Organic Nitrogen in 100,000 parts of the Waters.

	Companies or Local Authorities.	1890. Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Mean.
Inner Circle.	Thames.													
	Chelsea	·052	·048	·045	·028	·031	·021	·026	·033	·024	·021	·018	·027	·031
	West Middlesex	·033	·041	·040	·024	·027	·024	·017	·036	·023	·020	·041	·023	·029
	Southwark	·046	·031	·033	·028	·032	·018	·018	·025	·025	·026	·020	·023	·027
	Grand Junction	·046	·041	·023	·021	·021	·020	·019	·044	·025	·015	·030	·022	·027
	Lambeth	·037	·040	·015	·021	·040	·028	·027	·032	·022	·022	·026	·039	·029
	Lea.													
	New River	·029	·028	·014	·010	·015	·011	·012	·017	·018	·013	·022	·012	·017
	East London	·031	·040	·016	·029	·014	·017	·021	·020	·026	·016	·017	·025	·023
	Deep Wells.													
	Kent	·005	·007	·008	·010	·008	·005	·007	·011	·009	·013	·005	·006	·007
Outer Circle.	Colne Valley	·020	·019	·015	·020	·018	·011	·015	·026	·015	·014	·018	·017	·017
	Tottenham Local Board	·018	·019	·019	·020	·019	·013	·016	·014	·013	·015	·016	·015	·016

Table E.

Proportional Amount of Organic Elements, that in the Kent Company's Water during the Nine Years ending December 1876 being taken as 1.

	Companies or Local Authorities.	1890. Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Mean.
Inner Circle.	Thames.													
	Chelsea	4·5	3·5	3·5	2·3	3·1	1·9	2·2	3·5	1·9	1·7	2·7	3·2	2·8
	West Middlesex	4·6	5·0	2·9	2·4	2·2	2·1	1·8	4·4	2·0	1·7	2·9	3·4	2·9
	Southwark	4·9	3·1	2·4	2·4	2·6	2·0	1·7	2·9	2·1	1·8	3·1	2·4	2·6
	Grand Junction	5·0	4·1	2·1	2·0	1·9	1·8	1·9	4·6	2·0	1·6	2·7	3·3	2·8
	Lambeth	4·4	3·5	2·4	1·8	2·7	2·6	2·4	4·8	1·8	1·6	3·1	3·1	2·8
	Lea.													
	New River	2·7	2·6	1·3	0·7	0·7	0·7	0·7	0·9	1·1	1·0	1·5	1·2	1·3
	East London	3·9	3·8	2·6	2·5	1·1	1·4	1·5	2·1	1·8	1·5	2·3	3·0	2·3
	Deep Wells.													
	Kent	0·5	0·4	0·5	0·6	0·6	0·3	0·4	0·6	0·4	0·8	0·7	0·6	0·5
Outer Circle.	Colne Valley	1·6	1·9	1·4	1·6	1·5	1·2	1·2	1·6	1·1	0·9	1·8	1·5	1·4
	Tottenham Local Board	1·1	2·0	1·7	1·0	1·1	1·1	1·3	0·7	0·8	1·0	0·8	1·3	1·2

Table F.

Ammonia in 100,000 parts of the Waters.

	Companies or Local Authorities.	1890. Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Mean.
Inner Circle.	Thames.													
	Chelsea	0	0	0	0	0	0	0	0	0	0	0	·001	·000
	West Middlesex	0	0	0	0	0	0	0	0	0	0	0	·001	·000
	Southwark	0	0	0	0	0	0	0	0	0	0	0	0	0
	Grand Junction	0	0	0	0	0	0	0	0	0	0	0	·001	·000
	Lambeth	0	0	0	0	0	0	0	0	0	0	0	·001	·000
	Lea.													
	New River	0	0	0	0	0	0	0	0	0	0	0	0	0
	East London	0	0	0	0	0	0	0	0	0	0	0	·003	·000
	Deep Wells.													
	Kent	0	0	0	0	0	0	0	0	0	0	0	0	0
Outer Circle.	Colne Valley	·002	·010	·003	·009	·009	·001	0	·048	0	0	·023	0	·009
	Tottenham Local Board	·070	·025	·030	·068	·060	·050	·070	·070	·060	·050	·050	·070	·056

Table G.

Nitrogen as Nitrates and Nitrites in 100,000 parts of the Waters.

	Companies or Local Authorities.	1890. Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Mean.
	Thames.													
Inner Circle.	Chelsea	·292	·268	·270	·212	·172	·135	·154	·125	·143	·141	·188	·229	·194
Inner Circle.	West Middlesex	·292	·286	·282	·201	·184	·148	·141	·158	·147	·169	·217	·239	·205
Inner Circle.	Southwark	·287	·269	·280	·202	·177	·110	·138	·151	·144	·150	·188	·246	·195
Inner Circle.	Grand Junction	·332	·300	·279	·202	·174	·109	·146	·186	·156	·171	·219	·259	·211
Inner Circle.	Lambeth	·293	·319	·298	·219	·187	·148	·150	·159	·153	·183	·230	·267	·217
	Lea.													
Inner Circle.	New River	·354	·297	·329	·283	·237	·203	·185	·228	·202	·201	·205	·282	·250
Inner Circle.	East London	·320	·293	·289	·259	·214	·137	·158	·176	·177	·173	·240	·298	·228
	Deep Wells.													
Inner Circle.	Kent	·425	·454	·504	·534	·346	·407	·510	·531	·434	·515	·472	·502	·470
Outer Circle.	Colne Valley	·442	·464	·427	·423	·386	·432	·486	·479	·406	·381	·437	·388	·429
Outer Circle.	Tottenham Local Board	·009	·846	·473	·059	·022	·027	0	·008	0	0	0	0	·120

Table H.

Total combined Nitrogen in 100,000 parts of the Waters.

	Companies or Local Authorities.	1890. Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Mean.
	Thames.													
Inner Circle.	Chelsea	·344	·316	·315	·240	·203	·156	·180	·158	·167	·162	·206	·257	·225
Inner Circle.	West Middlesex	·325	·327	·322	·225	·211	·172	·158	·194	·170	·189	·258	·263	·234
Inner Circle.	Southwark	·333	·300	·313	·230	·209	·128	·156	·176	·169	·176	·208	·269	·222
Inner Circle.	Grand Junction	·378	·341	·302	·223	·195	·129	·165	·230	·181	·186	·249	·282	·238
Inner Circle.	Lambeth	·330	·359	·313	·240	·227	·176	·177	·191	·175	·205	·256	·307	·246
	Lea.													
Inner Circle.	New River	·383	·325	·343	·293	·252	·214	·197	·245	·220	·214	·227	·294	·267
Inner Circle.	East London	·351	·333	·305	·288	·228	·154	·179	·196	·203	·189	·257	·326	·251
	Deep Wells.													
Inner Circle.	Kent	·430	·461	·512	·544	·354	·412	·517	·544	·443	·528	·477	·508	·477
Outer Circle.	Colne Valley	·464	·491	·445	·450	·411	·444	·501	·545	·421	·395	·478	·405	·454
Outer Circle.	Tottenham Local Board	·085	·886	·517	·135	·090	·081	·074	·080	·062	·056	·057	·073	·183

Table I.

Chlorine in 100,000 parts of the Waters.

	Companies or Local Authorities.	1890. Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Mean.
	Thames.													
Inner Circle.	Chelsea	1·8	1·8	1·8	1·9	1·9	1·8	1·7	1·9	1·9	1·9	1·9	1·9	1·9
Inner Circle.	West Middlesex	1·8	1·8	1·8	1·9	1·9	1·8	1·7	1·9	1·9	1·9	1·9	1·9	1·9
Inner Circle.	Southwark	1·8	1·7	1·8	1·9	1·9	1·8	1·7	1·9	1·9	1·9	1·9	1·9	1·8
Inner Circle.	Grand Junction	1·9	1·7	1·8	1·9	1·9	1·8	1·7	1·9	1·9	1·9	1·9	1·9	1·9
Inner Circle.	Lambeth	1·9	1·8	1·9	1·9	1·9	1·8	1·7	1·9	1·9	1·9	1·9	1·9	1·9
	Lea.													
Inner Circle.	New River	1·8	1·7	1·8	1·7	1·8	1·8	1·7	2·0	2·0	1·7	1·7	1·6	1·8
Inner Circle.	East London	2·0	1·9	1·9	2·1	2·0	1·9	1·8	2·0	2·0	2·0	1·9	1·9	2·0
	Deep Wells.													
Inner Circle.	Kent	2·6	2·5	2·6	2·6	2·6	2·5	2·4	2·6	2·5	2·5	2·3	2·0	2·5
Outer Circle.	Colne Valley	2·1	2·2	2·1	2·2	2·2	2·2	2·2	2·3	2·0	1·9	2·0	1·9	2·1
Outer Circle.	Tottenham Local Board	2·9	3 7	3·3	3·0	3·0	3·0	3·0	3·0	2·9	2·9	2·9	2·8	3·0

Table K.

DEGREES of HARDNESS (1 deg. = 1 part of carbonate of lime, or its equivalent,) in 100,000 parts of the WATERS.

	COMPANIES OR LOCAL AUTHORITIES.	1890.												
		Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Mean.
Inner Circle.	THAMES.													
	Chelsea	22·4	21·8	21·8	20·0	18·9	20·0	18·0	18·0	18·0	18·0	19·4	20·6	19·7
	West Middlesex	22·4	21·8	22·7	19·7	19·1	18·6	18·6	19·7	17·7	19·1	20·0	21·5	20·1
	Southwark	23·6	23·9	22·4	20·3	19·4	19·4	18·6	20·3	19·1	19·4	21·2	21·2	20·7
	Grand Junction	23·9	23·6	22·4	20·6	20·0	19·1	18·3	20·0	18·6	19·7	20·9	22·1	20·8
	Lambeth	23·0	23·9	22·7	20·9	20·0	19·4	18·6	19·1	18·6	20·0	20·6	23·0	20·8
	LEA.													
	New River	23·9	23·6	23·0	20·9	20·9	20·9	20·0	20·9	19·4	20·6	22·4	23·3	21·6
	East London	26·9	26·9	23·6	23·0	20·6	20·0	19·1	21·2	18·6	20·3	23·3	25·1	22·4
	DEEP WELLS.													
	Kent	29·0	30·8	32·2	32·9	32·1	29·7	29·0	30·3	29·3	28·7	28·7	24·2	29·7
Outer Circle.	Colne Valley	7·7	8·6	8·9	8·1	10·6	7·6	8·3	7·0	6·6	8·4	7·4	5·7	7·9
	Tottenham Local Board	23·6	30·3	25·1	23·6	23·0	24·3	22·7	22·0	22·1	22·7	23·6	22·1	23·8

Table L.

Averages for 1890.

The numbers in the Table relate to 100,000 parts of each Water.

	COMPANIES OR LOCAL AUTHORITIES.	Temperature in Centigrade Degrees.	Total Solid Matters.	Organic Carbon.	Organic Nitrogen.	Ammonia.	Nitrogen, as Nitrates and Nitrites.	Total combined Nitrogen.	Chlorine.	Total Hardness.	Proportional Amount of Organic Elements that in the Kent Company's Water during the 9 years ending Dec. 1876 being tak.
		°									
Inner Circle.	THAMES.										
	Chelsea	11·5	27·33	·135	·031	·000	·194	·225	1·9	19·7	2·8
	West Middlesex	11·6	28·21	·144	·029	·000	·205	·234	1·9	20·1	2·9
	Southwark	11·6	29·02	·127	·027	0	·195	·222	1·8	20·7	2·6
	Grand Junction	11·5	28·87	·135	·027	·000	·211	·238	1·9	20·8	2·8
	Lambeth	11·7	28·78	·139	·029	·000	·217	·246	1·9	20·8	2·8
	LEA.										
	New River	11·6	29·77	·057	·017	0	·250	·267	1·8	21·6	1·3
	East London	11·6	31·33	·112	·023	·000	·228	·251	2·0	22·4	2·3
	DEEP WELLS.										
	Kent	12·2	41·51	·023	·007	0	·470	·477	2·5	29·7	0·5
Outer Circle.	Colne Valley	—	18·59	·067	·017	·009	·429	·454	2·1	7·9	1·4
	Tottenham Local Board	—	42·69	·053	·016	·056	·120	·183	3·0	23·8	1·2

NOTE.—The numbers in these tables may be converted into grains per imperial gallon, by multiplying them by 7, and then moving the decimal point one place to the left.

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Fires in London during the Year 1890.

Captain Eyre M. Shaw, Chief Officer of the Metropolitan Fire Brigade, reported to the London County Council that the number of fires attended during 1890 was 2555, exceeding by 217 the number in the preceding year, and by 422 the average in the ten years 1880–89. According to this report the lives of 212 persons were seriously endangered, and 61 of these were lost. The numbers of lives lost by fires in London in the four preceding years were 49, 55, 48, and 44 respectively.

The staff of the Metropolitan Fire Brigade at the end of the year was distributed at 55 land engine, 4 floating, 52 hose cart, and 179 escape stations. The number of fire engines at these stations was 151, an increase of one on the number in the previous year; 9 were floating steam engines, 47 land steam engines, and 95 manual engines. The authorised strength of the brigade was 706 of all ranks, including the chief officer, second officer, and the superintendents. The cases of injury occurring in the brigade during the year were 105, against numbers ranging from 142 to 90 in the six previous years.

Number of **Fires** and of **False Alarms** attended during the Eleven Years 1880–90, and in each Month of 1890.

Years and Months.		Total Calls.	False Alarms and Chimneys.	Fires.				
				Serious.	Slight.	Total.	Per-centages.	
							Serious.	Slight.
1880		2194	323	162	1709	1871	8·7	91·3
1881		2376	385	167	1824	1991	8·4	91·6
1882		2341	415	164	1762	1926	8·5	91·5
1883		2630	486	184	1960	2144	8·6	91·4
1884		2806	517	194	2095	2289	8·5	91·5
1885		2851	581	160	2110	2270	7·0	93·0
1886		2853	704	151	1998	2149	7·0	93·0
1887		3059	696	175	2188	2363	7·4	92·6
1888		2693	705	121	1867	1988	6·1	93·9
1889		3131	793	153	2185	2338	6·5	93·5
1890		3546	991	153	2402	2555	6·0	94·0
1890.	January	284	83	11	190	201	5·5	94·5
	February	304	87	13	204	217	6·0	94·0
	March	245	63	8	174	182	4·4	95·6
	April	275	68	18	189	207	8·7	91·3
	May	318	85	11	222	233	4·7	95·3
	June	263	81	10	172	182	5·5	94·5
	July	240	81	6	153	159	3·8	96·2
	August	249	87	16	146	162	9·9	90·1
	September	315	82	11	222	233	4·7	95·3
	October	334	102	15	217	232	6·5	93·5
	November	326	89	19	218	237	8·0	92·0
	December	393	83	15	295	310	4·8	95·2

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